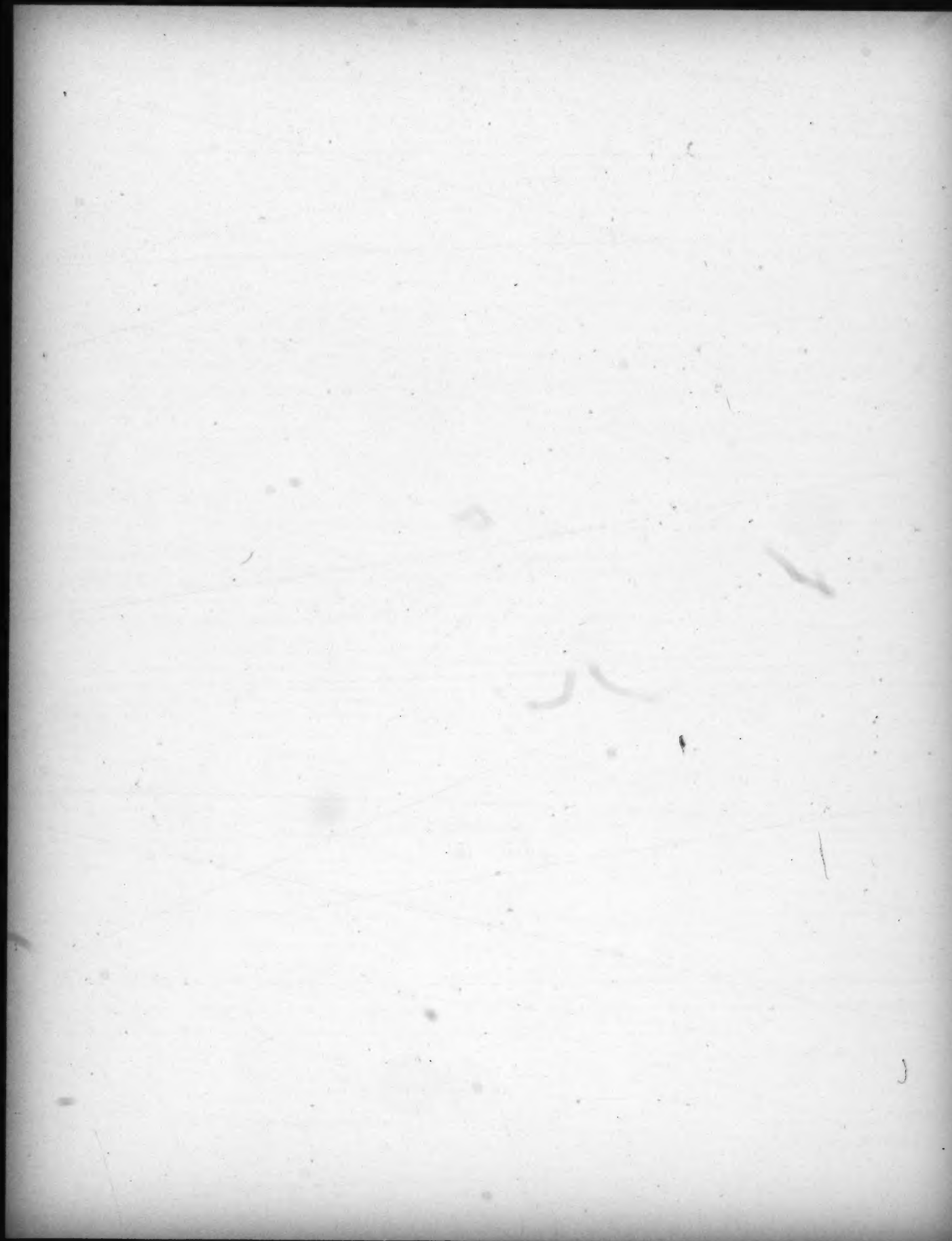


NOTE TO USERS

This reproduction is the best copy available

UMI



University of Alberta

**The Impacts of Changes in Funding and Related Policies
on Higher Education in Alberta From 1994 to 1997**

by

Colleen Anne Dozorec Judge ©

**A thesis submitted to the Faculty of Graduate Studies and Research in partial
fulfillment of the requirements for the degree of Doctor of Philosophy**

Department of Educational Policy Studies

Edmonton, Alberta

Fall 1999



National Library
of Canada

Acquisitions and
Bibliographic Services

395 Wellington Street
Ottawa ON K1A 0N4
Canada

Bibliothèque nationale
du Canada

Acquisitions et
services bibliographiques

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence

Our file Notre référence

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-46860-7

Canada

University of Alberta

Library Release Form

Name of Author: Colleen Anne Dozorec Judge

Title of Thesis: The Impacts of Changes in Funding and
Related Policies on Higher Education in
Alberta From 1994 to 1997

Degree: Doctor of Philosophy

Year this Degree Granted: 1999

Permission is hereby granted to the University of Alberta to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly, or scientific research purposes only.

The author reserves all other publication and other rights in association with the copyright in the thesis, and except as hereinbefore provided, neither the thesis nor any substantial portion thereof may be printed or otherwise reproduced in any material form whatever without the author's prior written permission.

June 24/99

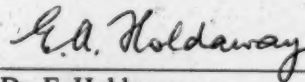
Colleen Judge

11103 - 46 Avenue
Edmonton, Alberta
Canada T6H 0A2

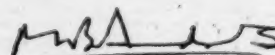
University of Alberta

Faculty of Graduate Studies and Research

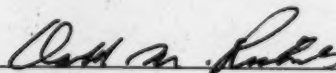
The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled *The Impacts of Changes in Funding and Related Policies on Higher Education in Alberta From 1994 to 1997* submitted by Colleen Anne Dozorec Judge in partial fulfillment of the requirements for the degree of Doctor of Philosophy.



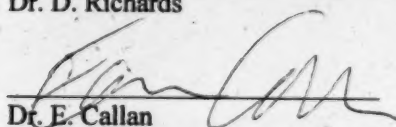
Dr. E. Holdaway
Supervisor



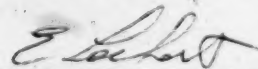
Dr. M. Andrews



Dr. D. Richards



Dr. E. Callan



Dr. E. Lechelt



Dr. A. Gregor
External Examiner

22 June 1999

Acknowledgements

Many people contributed to the completion of this study. I am particularly grateful to the staff in the administrative units at the University of Alberta who assisted in locating and interpreting various documents that were required for this research project. This staff includes Debbie Quigg and Bill Cairns in the Office of Budget and Statistics, Ellen Schoeck and Val Pemberton-Pigott in the University Secretariat, June Butt in the Office of the VP (Finance and Administration), and Jocelyn Groleau in the Office of the Comptroller. Insight and feedback from Debbie and Bill on Chapter 6 was extremely useful and much appreciated. I am also very grateful to the 14 anonymous department chairs at the University of Alberta who took the time to speak with me and to review the transcripts of our conversations. Additionally, I am grateful to Harald Zinner at Alberta Advanced Education and Career Development for his help in identifying and forwarding pertinent provincial policy documents.

I would like to acknowledge Drs. Eugene Ratsoy and Eugene Lechelt for assisting in the preparation of the department chair interview guide and completing pilot interviews with me. The various contributions of my supervisor, Dr. Holdaway, and committee members, Drs. Andrews, Richards, Callan, Lechelt, and Gregor, are also gratefully acknowledged. Certain aspects of this study would not have been as thorough without the financial expertise of Alex Tutschek and I would like to thank him for sharing his knowledge. I would also like to thank four fabulous people—Linda D'Ilio, Jeannie Kahlina, Chris Prokop, and Bill Smale—who were always available to talk things out or read things through, and Tim Horton's for its never ending supply of fresh, hot coffee. Finally, I must thank my family—David, William, and Katie—for their ongoing patience, love, and support. I know I didn't tell them often enough how much I appreciated them being there.

Abstract

A 20% cut in institutional operating grants combined with the implementation of a performance funding mechanism and other related policies in 1994, made Alberta a pioneer in higher education reform in Canada. The purposes of this study were to establish what specific changes in policy occurred between 1994 and 1997, and to examine how they affected the province's largest postsecondary institution, the University of Alberta, from macro- and micro-institutional perspectives.

Documentary data from the periods 1994-97 and 1983-98 respectively were gathered to provide the systemic and macro-institutional perspectives. Data from semi-structured interviews conducted in April 1997 with 14 academic department chairs were collected to provide the micro-institutional perspective. The data were organized into major policies and categories, described in terms of specific strategies and issues, and then interpreted thematically.

The study had two major findings. First, it was found that through the restructuring of its institutional funding policy, the Ministry of Advanced Education and Career Development (AECD) intended to shift the system of higher education in Alberta toward a free market model. In doing so, AECD had four primary objectives. These included reducing its proportion of support for higher education without compromising accessibility and quality, increasing the proportion of support from private sources, improving responsiveness to market needs, and increasing productivity and efficiency. Second, it was found that although the University of Alberta had met several of AECD's objectives in the short-term, this had not been

achieved without compromising the quality of the working and learning environments at the institution. It was concluded that long-term sustainability of this condition was not likely.

The study's findings support the assertion in the literature that retrenchment has caused fundamental change in higher education in North America. Not only have expenditures been reduced, but resources have been reallocated and operations have been restructured. In Alberta, these changes have occurred systemically as well as institutionally. Specific institutional impacts were identified. Recommendations for administrative practice and further scholarly research were also offered.

Table of Contents

Chapter	Page
1 INTRODUCTION TO THE STUDY	1
Purpose.....	1
Justification.....	1
Research Questions.....	3
Definitions.....	4
Organization.....	5
2 REVIEW OF THE LITERATURE.....	7
American Higher Education Contraction Literature	7
Macro-institutional Literature.....	8
Micro-institutional Literature.....	12
Canadian Higher Education Contraction Literature.....	21
Crisis and Opportunity Literature	22
Systemic Literature	23
Macro-institutional Literature.....	25
Micro-institutional Literature.....	27
Summary	29
3 METHODS	32
Approach to the Methods.....	32
Research Strategy.....	32
Data Sources and Collection.....	34
Systemic Perspective.....	34
Macro-institutional Perspective	35
Micro-institutional Perspective.....	35
Data Analysis	38
Organization.....	38
Description.....	39

Chapter	Page
Interpretation.....	39
Transparency of Method	39
Delimitations.....	40
Limitations	40
4 PROFILES OF THE ALBERTA SYSTEM OF HIGHER EDUCATION AND THE UNIVERSITY OF ALBERTA	41
The Alberta System of Higher Education	41
Overview.....	41
Governance and Administration	43
Recent History.....	49
The University of Alberta	53
Overview.....	53
Governance and Administration	54
Recent History.....	57
Summary	68
5 CHANGES IN THE FUNDING OF PUBLIC INSTITUTIONS OF HIGHER EDUCATION IN ALBERTA SINCE 1994	71
Changes in Funding and Related Policies.....	71
Grants and Related Policies	72
Envelope Funding	76
Summary and Discussion.....	87
6 THE MACRO-INSTITUTIONAL RESPONSE OF THE UNIVERSITY OF ALBERTA	92
Financial Policy at the University of Alberta, 1994-97	92
Expenditure Reduction.....	97
Revenue Generation.....	110
Summary and Discussion.....	115

Chapter	Page
7 THE MICRO-INSTITUTIONAL IMPACT ON THE UNIVERSITY OF ALBERTA	119
Review	119
Participant Profiles.....	122
Micro-Institutional Impacts.....	124
Human Resources	124
Material Resources.....	146
Summary and Discussion.....	149
8 OVERVIEW, CONCLUSIONS, AND RECOMMENDATIONS	152
Overview of the Study	152
Purpose.....	152
Justification.....	153
Method	153
Context.....	154
Findings.....	155
Conclusions.....	158
Reduction, Reallocation, and Restructuring	158
Selectivity, Stratification, and Resource Disparity	162
Recommendations for Practice	164
Recommendations for Further Research.....	164
REFERENCES	167
APPENDICES	182
Appendix A: Letter of Request to Participate.....	183
Appendix B: Letter of Consent to Participate.....	185
Appendix C: Interview Guide	187
Appendix D: Letter Requesting the Participants to Review the Interview Transcripts	191

Chapter	Page
Appendix E: Letter Requesting Selected Participants to Review Their Interview Comments Selected for Quotation in the Study.....	193
Appendix F: Summary of <i>Degrees of Freedom: A Strategic Plan for the University of Alberta to the Year 2005</i>	195
Appendix G: Summary of Restructuring at the University of Alberta, 1991-97	201
Appendix H: University of Alberta Unit Net Operating Expenditures Excluding Conditional Grants (in Thousands of Dollars) for the Years Ended March 31, 1994-97	206

List of Tables

Table	Page
4.1 Full-time Equivalent (FTE) Enrolment in All Postsecondary Programs in Alberta, 1994-97	42
4.2 Summary of Goals and Strategies in <i>New Directions for Adult Learning in Alberta</i>	52
4.3 University of Alberta Faculties, Departments, and Schools, 1997-98	55
4.4 University of Alberta Annual Average Base Budget Reductions, 1983-93	59
4.5 Summary of <i>Maintaining Excellence and Accessibility in an Environment of Budgetary Restraint</i>	61
4.6 Summary of Structural Changes Proposed in <i>Quality First</i>	65
5.1 Summary of Changes in Provincial Funding of Postsecondary Education Institutions in Alberta, 1994-99	91
6.1 University of Alberta Revenue From Alberta Advanced Education and Career Development (in Thousands of Dollars) for the Years Ended March 31, 1994-97	94
6.2 University of Alberta Revenue From All Sources (in Thousands of Dollars) for the Years Ended March 31, 1994-97	95
6.3 University of Alberta Difference in Base and Total Operating Budgets by Cost Centre for the Years Ended March 31, 1995-97	99
6.4 University of Alberta Full-time Equivalent (FTE) Operating Staff, 1993-94 to 1996-97	106
6.5 University of Alberta Net Operating Expenditures on Salaries (in Thousands of Dollars) for the Years Ended March 31, 1994-97	106
6.6 University of Alberta Total Net Operating Expenditures Excluding Conditional Grants Compared to Net Operating Expenditures on Salaries (in Thousands of Dollars) for the Years Ended March 31, 1994-97	107
6.7 University of Alberta Net Operating Expenditures Excluding Conditional Grants (in Thousands of Dollars) for the Years Ended March 31, 1994-97	108
6.8 University of Alberta Type and Source of Revenue (in Thousands of Dollars) by Percentage of Total Type and Percentage of Total Revenue for the Years Ended March 31, 1994-97	116

Table	Page
7.1 Distribution of Department Chairs by Faculty	123
7.2 Distribution of Department Chairs by Length of Time as Department Chair...	123
7.3 Distribution of Department Chairs by Length of Time as Faculty Members in Their Departments	123

List of Figures

Figure	Page
4.1 Alberta Advanced Education and Career Development Organization Chart.....	44
4.2 Basic Structure of Governance in Alberta Universities	48
4.3 University of Alberta Senior Administration Organization Chart 1997-98.....	56
4.4 University of Alberta Structure of Governance	58
5.1 Performance Envelope Progress Calculation 1997-98.....	80

CHAPTER 1

INTRODUCTION TO THE STUDY

Purpose

The purpose of this study was to examine the impact of recent changes in funding and related policies in higher education in Alberta from an institutional perspective. The study identifies specific policy changes affecting institutional funding in Alberta between 1994 and 1997, and describes how these changes have affected operations at Alberta's largest postsecondary institution, the University of Alberta, from macro- and micro-institutional perspectives.

Justification

In the past decade, profound change in systems of higher education has occurred on a global basis. In an international review of policy change in higher education, Meek, Goedegebuure, Kivinen, and Rinne (1991) noted that governments generally have assumed a more prominent role in shaping the goals and functions of higher education. Governments have asked their respective higher education systems to participate more effectively and efficiently in producing a better educated, culturally enriched, and more economically secure society. This request has been precipitated by three primary factors: the desire for financial stringency and accountability, increased demand for higher education, and the consideration of market priorities. Governments want to spend less money on higher education and get more value per dollar spent. More people want and need to pursue higher education. Additionally, governments and industry want higher education to be more closely tied to economies, both in terms of meeting labour market needs and through research discovering new products or resources.

Canadian higher education has participated in this global change. Michael and Holdaway (1992) have described the 1980s as the dawn of a new era in Canadian higher education as the post-1945 ideals of autonomy, expansion, and unlimited

funding in higher education policy gave way to the new ideals of accountability, economy, and efficiency. Since the early 1980s, both federal and provincial governments in Canada have been revising their higher education funding policies and reducing their levels of financial support to institutions (Cameron, 1991; Cutt & Dobell, 1992). In Alberta, government funding of higher education has undergone a veritable revolution since 1994, when Advanced Education and Career Development (AECD) announced that the post-secondary system would be restructured to achieve greater accessibility, responsiveness, affordability, and accountability. The provision of funding to public institutions was of particular significance in the restructuring plans, not only because institutional operating grants were slated for a three-year cumulative reduction of nearly 20%, but because a new performance funding mechanism and several related policies were to be implemented to induce the desired systemic changes.

Alberta is at the forefront of change in Canadian higher education in the 1990s, as it is the first province to implement rapid and large-scale reductions in higher education funding, as well as to link funding to institutional performance. Developments in Alberta may be a harbinger of developments in higher education across the nation. As Skolnik (1997, p. 335) pointed out, other provinces are now pressuring their post-secondary systems to increase accessibility and quality of education in the face of shrinking resources, and therefore to increase efficiency; to be more responsive to student and societal needs; and to become demonstrably accountable to governments as well as the general public. Institutions in Alberta have had several years to respond and adjust to the policy changes introduced in 1994, and consequently are ripe for an assessment of the impact of those changes. Such an assessment would be informative to scholars, government officials, university administrators, and the public alike, as research into the effects of retrenchment on higher education in Canada from every perspective—systemic, macro-institutional, and micro-institutional—has been modest.

In the past 10 years, only six studies have examined the systemic impacts of contraction in Canadian higher education (Clarke, 1986; Jones, 1991; Levin & Dennison, 1989; Skolnik, 1987; Small 1994, 1995) and three of the six studies have examined higher education in Ontario exclusively. Little is known about the systemic impact of contraction in other provinces, and conflicting conclusions have been drawn as to whether government retrenchment policies have induced systemic change. Likewise, only two scholars (Dennison, 1987; Hardy, 1987, 1988, 1990a, 1990b, 1996) have studied macro-institutional contraction in Canada, their studies are based on data over 10 years old, and have focused solely on institutions in British Columbia, Ontario, and Quebec. Virtually nothing is known about macro-institutional responses to government retrenchment policies in the rest of the country or about how institutions have responded to the challenges of retrenchment in the 1990s. Nearly the same assessment applies to Canadian micro-institutional research. Only two studies (Ell, 1988; Pawlak, 1992) have examined the impact of contraction in higher education from a micro-institutional perspective, they have examined faculty perceptions of retrenchment only, and have focused on institutions in British Columbia, Alberta, Saskatchewan, and Manitoba. No research has been conducted on faculty perceptions outside western Canada, on substantive retrenchment measures giving rise to faculty perceptions, or on the redistributive effects of retrenchment by micro-institutional categories such as discipline area, department, and gender.

Research Questions

The study was guided by the following General Research Question:

How have changes in funding and related policies in higher education in Alberta since 1994 affected macro- and micro-institutional operations at the University of Alberta?

To address the General Research Question, data were sought in connection with the following Specific Research Questions:

1. *What specific changes in policy have occurred in the funding of public institutions of higher education in Alberta since 1994?*

2. *How has central administration at the University of Alberta responded to the changes in provincial funding policy since 1994?*

3. *How has the macro-institutional response of the University of Alberta affected the operations of academic departments from the perspective of department chairs?*

Definitions

The following definitions of terms were employed in this study:

Contraction

This term refers to activities that reduce the scale or scope of an organization's operations. It is used interchangeably with the term "retrenchment" (Hardy, 1990c, pp. 1, 202).

Decline

This term refers to the deceleration of growth (Mortimer & Tierney, 1979, p. 3), which is characterized by shrinking student enrolments and/or institutional revenues from any source (Hardy, 1987-88, pp. 10-11).

Higher Education

This term refers to educational institutions that generally require the completion of senior matriculation or high school. It is used interchangeably with the term "postsecondary education."

Operations

This term refers to the management of the human, financial, and material resources of an organization.

Macro-institutional operations. This term refers to general institutional operations that are managed by boards of governors, presidents, and vice-presidents.

Micro-institutional operations. This term refers to specific unit operations that are managed by deans of faculties, department chairs, or unit directors.

Policy

This term refers to the accumulated standing decisions of a governing body by which it regulates, controls, promotes, services, and otherwise influences matters within its sphere of authority (Guba, 1984, p. 64).

Retrenchment

This term refers to activities that reduce the scale or scope of an organization's operations. It is used interchangeably with the term "contraction" (Hardy, 1990c, pp. 1, 202).

Organization

This report of the study is organized into eight chapters. Chapter 2 contains a critique of the American and Canadian higher education contraction literature, a summary of the two bodies of literature, and identification of areas requiring further research. The chapter provides rationale for the undertaking and design of the study, and acts as a reference point for subsequent discussion of the findings.

The methods employed in the conduct of this study are described in Chapter 3. This chapter allows the reader to decide the extent to which sensible and appropriate methods decisions were made given the purpose of the inquiry and research questions investigated.

Chapter 4 presents selected characteristics and circumstances of the Alberta system of higher education and the University of Alberta. This chapter provides contextual information that is relevant to the presentation and analysis of the findings presented in other chapters, and that will promote the transferability of the findings to other systems and institutions of higher education.

Chapters 5 through 7 present the findings in relation to the three Specific Research Questions. Chapter 5 describes the funding and related policy changes introduced by Alberta Advanced Education and Career Development in 1994, explaining how they differed from previous arrangements and evolved to the end of the 1997 calendar year. Chapter 6 identifies the major financial policies adopted by the University of Alberta in response to the provincial funding changes. Components

of each of the policies, as well as their application and outcomes to the end of the 1996-97 fiscal year are described. Chapter 7 describes the effects of the institutional retrenchment policies on departmental operations as perceived by selected department chairs. Each of these chapters concludes with a thematic summary and discussion of the findings presented.

An overview of the study is provided in Chapter 8. Additionally, key areas where the study has contributed to the literature are identified, and recommendations for practice and further research are offered.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter reviews literature pertinent to contraction in higher education in the United States and Canada. It contains a critique of the American and Canadian higher education contraction literature, a summary of the two bodies of literature, and identification of areas requiring further research. The purposes of this review are to provide rationale for the undertaking and design of the study as explained in Chapters 1 and 3, and to act as a reference point for the discussion of the findings presented in Chapter 8.

Slaughter and Skolnik (1987) suggested that the U.S. and Canada were well-suited for comparative analysis because the two countries shared a common border, many of the same economic problems, and systems of government where authority for higher education was not located at a federal level, but in the states and provinces. Additionally, there were many similarities between the U.S. and Canada with respect to the funding of higher education since World War Two. These similarities included a long period of expansion extending into the 1970s, a second period of stabilization or slight decline during which some states and provinces experienced great growth and few others decline, and greater and more widespread decline since the early 1980s involving severe funding cuts and greater government intervention in restructuring the higher education systems.

American Higher Education Contraction Literature

The review indicated that the American higher education contraction literature fell into two main bodies. The first and largest body adopted a macro-institutional management perspective and was concerned primarily with long-term institutional viability during periods of decline. This literature focused on maintaining excellence and accessibility, while at the same time enhancing economy, efficiency, and productivity (e.g., Ashar & Shapiro, 1990; Babcock, 1983; Baltes, 1987-88; Barak,

1981; Bloomfield, 1993; Bowen & Glenny, 1980; Boyd, 1979; Cameron, 1983; Campbell, 1982; Chabotar & Honan, 1990; Chaffee, 1984; Christ-Janer, 1980; Dougherty, 1981; Dube & Brown, 1983; Dunn, 1992; El-Khawas, 1994; Falk & Miller, 1993; Franklin, 1982; Gappa, 1992; Gardner, Warner, & Biedenweg, 1990; Glenny & Bowen, 1981; Guskin, 1996; Hoffman, 1992; Hollins, 1992; Hyatt, 1993; Jonsen, 1984; Knepp, 1992; Kotler & Murphy, 1981; Melchiori, 1982; Mingle & Norris, 1981; Mortimer & Tierney, 1979; Peterson, Dill, Mets & Associates, 1997; Phillips, Morell & Chronister, 1996; Powers, 1982; Rubin, 1979; Schwerin, 1980; Study Group on Restructuring, 1993; Volkwein, 1984; Whetton, 1981; Zammuto, 1986; Zemsky & Massy, 1990). The second, smaller body of contraction literature adopted a micro-institutional perspective, and focused on assessing the impacts of resource scarcity and retrenchment activities on faculty, departments, and disciplines within institutions of higher education (e.g., Dallam & Hoyt, 1983; Dickman, Fugqua, Coombs & Seals, 1996; Kerlin & Dunlap, 1993; Kissler, 1997; McKinley, Cheng, & Schick, 1986; Rhoades, 1993; Slaughter, 1993, 1995, 1998; Williams, Olswang & Hargett, 1986).

Macro-institutional Literature

This body of literature developed in the late 1970s in response to what Levine (1979) labelled the "tooth fairy syndrome" in public administration, a situation where administrators believed "that the decline is temporary and the cuts will be restored soon by someone—in some cases [someone] as remote as the tooth fairy" (p. 181). According to Mortimer and Tierney (1979), higher education administrators had failed to acknowledge the long-term implications of the "big dip" in student enrolments and institutional revenues forecast for American higher education throughout the 1980s, and to get beyond a short-term "cut, squeeze, and trim mentality" in their approach to institutional retrenchment (pp. 5, 53).

Generally, scholars found that administrators reacted to decline but did not plan for it (e.g., Mortimer & Tierney, 1979; Bowen & Glenny, 1980; Mingle & Norris, 1981). Attempts to attract new students and new sources of revenue usually

preceded attempts to scale down operations. Contraction took place only when revenue shortfalls created institutional crises and was often carried out in an unplanned and irrational manner by central authorities, leading to conflict between faculty and administration, low staff morale, and high staff turnover. When forced to contract, administrators showed a propensity for across-the-board cuts or short-term, one-time cuts such as salary freezes, reductions in institutional support services, personnel reduction through attrition, and deferral of maintenance or special projects, over more long-term, selective cuts involving administrative restructuring, program elimination, and faculty dismissal (e.g., Campbell, 1982). After reviewing several retrenchment case studies, Boyd (1979) claimed that higher education administrators had responded conservatively rather than innovatively to financial decline by "basically doing less of the same" (p. 3). Rubin (1979), Whetton (1981), Mingle and Norris (1981), and Cameron (1983) reiterated this claim.

The consensus among early analysts of contraction in higher education was that administrators tended to resist rather than adapt to conditions of decline. Mingle and Norris (1981) explained that

adaptation implies reconciliation of institutional goals to new circumstances. Adapting successfully calls for more than mere cutting of expenditures in the face of revenue shortfall; it calls also for careful planning in anticipation of decline, so that both the timing and the nature of the contraction can be controlled. (p. 56)

A barrage of case-study researchers found that institutions that had contracted without apparent impacts on quality and access had anticipated and planned for decline (e.g., Mortimer & Tierney, 1979; Christ-Janer, 1980; Schwerin, 1980; Barak, 1981; Dougherty, 1981; Kotler & Murphy, 1981; Mingle & Norris, 1981; Campbell, 1982; Franklin, 1982; Melchiori, 1982; Powers, 1982; Babcock, 1983; Dube & Brown, 1983; Chaffee, 1984; Jonsen, 1984; Volkwein, 1984). They argued that a period of decline could be either a time of danger or a time of opportunity for higher education institutions, and that determining which it would be lay within the control of administrators. They contended that if carefully planned, contraction could not only

be carried out with a minimum of organizational stress, but could also provide an opportunity to strengthen institutional programs, personnel, and services.

Acknowledging that the conditions faced by individual institutions were unique, as was the capacity of each institution to cope with them, these authors conceded that it was impossible to identify substantive measures or specific actions that would be applicable to all institutions. However, they emphasized that it was possible to discuss general *processes* that could be followed to enhance an institution's potential for success during periods of decline. Such processes included rational planning, long-range planning, mission review, program review, priority setting, resource assessment, environmental assessment, and enrolment management, and collectively were referred to as "strategic planning," a concept drawn from the extant business literature (Chaffee, 1984, 1985).

Based on an extensive review and synthesis of the higher education contraction literature, Zammuto (1986) concluded that successful strategic planning for higher education institutions confronting decline involved five basic steps:

- (a) review and restatement of the institutional mission in operational terms to provide guidance in setting priorities;
- (b) assessment of past, present, and future enrolment trends to enhance an institution's ability to attract and retain students;
- (c) environmental assessment to increase awareness of uncontrollable trends or events that may affect future enrolments and revenues;
- (d) program review to assess the fit between academic programs and the institution's mission, and to set priorities for resource allocation; and
- (e) contingency planning that specified the content of retrenchment activities and how a retrenchment process would operate should declining enrolments and revenues occur.

Additionally, Zammuto concluded that widespread faculty participation in the strategic planning process was critical to its success. He contended that the participation of faculty in determining the priorities to be used in developing a retrenchment strategy and for identifying the targets of cuts and reallocations would build acceptance of and commitment to the institution's retrenchment strategy, enhance the legitimacy of the retrenchment process, and

increase the ability of institutional leaders to pull the members of the institution together to move in a common direction.

Zammuto's (1986) conclusions were reinforced in an array of subsequent studies. The general finding of case-study research conducted by Baltes (1987-88), Ashar and Shapiro (1990), Chabotar and Honan (1990), Gardner et al. (1990), Zemsky and Massy (1990), Dunn, (1992), Knepp (1992), Hoffman (1992), Hollins (1992), Hyatt (1993), Bloomfield (1993), Falk and Miller (1993), Gappa (1993), Study Group on Restructuring, Pew Higher Education Research Program (1993), and Guskin (1996) was that higher education institutions that were best able to avoid crises and meet the challenges of decline, resource scarcity, and contraction were those that had established response mechanisms before substantial hardship occurred. Such mechanisms usually were established through a participatory strategic planning process involving the reassessment of institutional goals and priorities, and the realignment of institutional resources to correspond with the priorities.

In a national survey of 296 public-sector institutions conducted in the spring of 1994, El-Khawas (1994) found that although specific retrenchment strategies varied between institutions according to their contexts, the strategies generally could be grouped into four categories: (a) expenditure control, (b) seeking new sources of revenue, (c) reorganization, and (d) selective decisions about academic programs. Further, El-Khawas found that most of the institutions had taken comprehensive action—that is, implemented changes reflecting all four categories—rather than relying on a single strategy. She concluded that as a result of such actions, public higher education in the United States was taking initial steps toward a substantial reassessment, and possibly a realignment, in the way it was financed and what programs it offered to constituents. Extending El-Khawas' conclusions, Phillips et al. (1996) postulated that public universities could be turning into quasi-private institutions, forced by the erosion of public support to operate as public-private hybrids in order maintain their quality. However, they acknowledged, such

conclusions were only tentative and extensive further research on institutional strategies and their outcomes was required:

This phenomenon . . . is not well documented and not well understood. Anecdotal information and commentaries in the press suggest that major public research universities—the University of Michigan; the University of Virginia; the University of California, Los Angeles; and others—are transforming themselves (Wallace and Frammolino, 1995). However, there is a dearth of comprehensive information about any one institution's experience, probably because of the immediacy of the change and, perhaps, because its complexity is daunting. (p. 17)

As a whole, the American macro-institutional contraction literature has concentrated on drawing the attention of scholars and administrators to the need for long-term, adaptive approaches toward contraction in higher education, and to the apparent effectiveness of participatory strategic planning as a method of contraction. The strength of the strategic planning model put forward in this body of literature was that it recognized the heterogeneity of higher education institutions, and consequently focused on process over substance. It acknowledged that the development of universally applicable substantive contraction measures was impossible due to differences in institutional structure, function, resources, and context. The model's emphasis on process measures such as goal, resource, and environmental assessment directed each individual institution toward generating substantive contraction measures tailored to its own unique objectives, capabilities, and circumstances. The American macro-institutional has shown that, in general, institutions have employed substantive measures falling under four broad categories—expenditure control, new revenue generation, reorganization, and program selectivity—and that most institutions have employed measures from several categories at once.

Micro-institutional Literature

The review indicated that the micro-institutional contraction literature was not a well-developed body of literature; it was neither as extensive nor as unified as its macro-institutional counterpart. Only 10 studies were identified that have assessed the impact of contraction in American higher education from a micro-institutional

perspective, and they have differed vastly in approach and conclusion. Dallam and Hoyt (1983), McKinley et al. (1986), Williams et al. (1986), Dickman et al. (1996), and Kissler (1997) have focused on the attitudes of faculty and administrators toward retrenchment options, resource criticality and participation, while Slaughter (1993, 1995, 1998), Kerlin and Dunlap (1993), and Rhoades (1993) have focused on the impacts of retrenchment on faculty by discipline, gender, and tenure rank and status.

Based on a questionnaire survey of 120 faculty members and 52 department heads at Kansas State University in 1980, Dallam and Hoyt (1983) discovered a preference for retrenchment options that preserved faculty positions, even at the expense of other departmental resources such as service, travel, computer, and graduate assistants. The only reduction in faculty positions that was supported was leaving a vacancy unfilled, with the remaining faculty picking up the instructional load by reducing their commitments to research and/or service. Instructional commitments were given precedence over commitments to research and service, and failure to fill a vacant departmental position was acceptable provided that no change was made in the department's course offerings. Department heads appeared to be more reluctant to approve any kind of reduction in faculty than were the faculty themselves.

Dallam and Hoyt (1983) found that while that both department heads and faculty were generally negative toward accepting any significant change within their departments, they were also generally favourable toward institutional policy when they were given the opportunity to select policy changes. In other words, retrenchment options for which faculty or department heads had little or no responsibility had the greatest appeal. Only in the case of departments with declining enrolments did faculty appear to be willing to make changes that intimately affected them. As a result, Dallam and Hoyt concluded that participatory processes for developing retrenchment procedures and policies should be especially sensitive to the "self-serving" (p. 420) motivations of the participants, and that efforts needed be

made to encourage departments to see themselves as part of a whole and to think in more universal terms.

McKinley et al. (1986) tested Dallam and Hoyt's (1983) findings by examining faculty and administrators' perceptions of the criticality of personnel resources—both support staff and faculty—in times of general scarcity of resources in a university college. Their study focused on the relationship between respondents' perceptions of the relative criticality of support staff and faculty and the value respondents placed on research, and how the level of paradigm development of respondents' academic disciplines moderated this relationship. Disciplines with highly developed paradigms were defined as those with standard vocabularies, accepted bodies of knowledge, a high level of grant support, and use of sophisticated research equipment. Data were collected from standardized questionnaires sent to a random sample of 128 faculty and administrators of the College of Liberal Arts and Sciences in a major midwestern state university.

In contrast to Dallam and Hoyt's (1983) finding that faculty generally preferred retrenchment options that preserved faculty positions, McKinley et al. (1986) found that in times of scarcity, research-oriented faculty and administrators viewed support staff as more critical relative to faculty than did their colleagues who valued research less. Further, they found that the relationship between research orientation and perceived criticality of support staff relative to faculty was stronger in academic disciplines with highly developed paradigms. McKinley et al. suggested their findings indicated a contingency approach to departmental retrenchment. In academic departments with many research-oriented faculty members, particularly departments in disciplines with highly developed paradigms, retrenchment would be more acceptable if it made preserving support staff as well as faculty a priority. In departments with fewer research-oriented faculty, particularly in those disciplines with a lower level of paradigm development, acceptance of retrenchment would not be so dependent on preserving support staff. Thus, McKinley et al. concluded that

university administrators should vary their proposals for departmental retrenchment depending on the contexts and values of the departments involved.

A recent survey by Dickman et al. (1996) added to the body of knowledge generated by Dallam and Hoyt (1983) and McKinley et al. (1986) by examining the attitudes toward budget reduction choices and processes of 205 academic and student affairs administrators selected randomly from colleges and universities throughout the United States. The major findings of this study were threefold. The first was that there was "very little difference" (p. 464) on budget reduction choices as a function of either the participant's position, gender, or type of institution. The second was that the participants preferred budget reduction options in this order: (a) reduced class offerings, (b) organizational restructuring, (c) staff reductions, (d) faculty/staff development reductions, (e) reduced student support, (f) using lower-cost faculty/staff, and (g) salary reduction. Finally, the study found that although academic and student affairs administrators shared similar perceptions on the process of downsizing, there were some noticeable variations. Namely, the student affairs administrators preferred an across-the-board reduction strategy rated on the three dimensions of effectiveness, efficiency, and satisfaction. In contrast, representation by group election was perceived by academic administrators as the most effective and most satisfying process, while the use of an external consulting firm was viewed as the most efficient.

Other research on faculty attitudes toward institutional retrenchment included studies conducted by Williams et al. (1986) and Kissler (1997). In contrast to the Dallam and Hoyt (1983), McKinley et al. (1986), and Dickman et al. (1996) studies, Williams et al. and Kissler examined the relationships between the extent of faculty participation and the level of faculty morale during periods of institutional retrenchment. Williams et al. surveyed provosts (senior academic administrative officers) and chairpersons of the campus faculty senates for the 50 member institutions of the Association of American Universities with that administrative

structure, while Kissler surveyed the president, academic vice-president, and a faculty member in each of a sample of 225 colleges and universities across the U.S.

Paradoxically, the findings of the studies were both similar and different. Williams et al. (1986) found that although faculty participation increased with the seriousness of the financial situation, the more faculty participated in direct reduction decisions the more likely was morale perceived to be lower. Further, they found that it was the type of the cut rather than the degree of participation that was the controlling factor on morale, with morale being at its lowest when faculty terminations were required. Similarly, Kissler (1997) found that although faculty "gained a little influence" (p. 452) in cutting budgets than they had in regular allocation decisions, faculty at institutions with shared authority and academic community forms of governance were no more satisfied with governance than their colleagues at institutions with centralized administrations. However, deviating from Williams et al., Kissler found that financial context (e.g., how wealthy the campus was) was the crucial variable affecting faculty morale. Put another way, Kissler found that faculty at institutions with an improving financial context were more satisfied with governance than their colleagues at institutions in a financial downturn.

As a group, the Dallam and Hoyt (1983), McKinley et al. (1986), Dickman et al. (1996), Williams et al. (1986), and Kissler (1997) studies have contributed to the higher education contraction literature by drawing attention to micro-institutional factors that should be considered in the development of macro-institutional contraction plans. Specifically, while the Dickman et al. study has shown that administrators view staff reductions as a high-ranking budget reduction strategy, Dallam and Hoyt and Williams et al. have suggested that they can expect faculty dissatisfaction or resistance to that strategy except in departments with declining enrolments. Further, McKinley et al. have indicated that faculty resistance will be stronger in lower paradigm-developed disciplines than in higher paradigm-developed disciplines. Moreover, in contradiction to the macro-institutional body of literature, both Williams et al. and Kissler have suggested that faculty morale and satisfaction

will not increase with greater faculty participation in retrenchment decision making processes. However, similar to the macro-institutional literature, the Dallam and Hoyt and McKinley et al. studies have emphasized the heterogeneity of academic departments and disciplines, and have directed administrators toward developing departmental contraction measures specific to the contexts and orientations of the departments involved.

Major weaknesses in this group of attitudinal studies were that it was small and some of the findings were contradictory. In particular, the single institutional samples in the Dallam and Hoyt (1983) and McKinley et al. (1986) studies precluded any generalizations about retrenchment decisions to other universities and colleges, and while the Williams et al. (1986) and Kissler (1997) studies agreed that level of faculty morale was unrelated to degree of faculty participation in decision making, they disagreed on what the critical variable affecting morale was. Clearly, extensive further research in this area is required. As Dickman et al. (1996) pointed out, administrators of higher education institutions would benefit from "some identifiable cognitive framework for organizing and interpreting dimensions of both the substance and the process of the downsizing challenge" (p. 467). They suggested that "one approach would be to use qualitative (e.g., ethnography [sic] or case study) methods to study institutions that already have implemented processes and have documented outcomes," and concluded, "Whatever method or approach might be employed, the phenomenal impact of downsizing on the life of an organization provides a compelling argument for continuing research efforts in this area" (p. 467).

The remaining five studies in the micro-institutional body of literature differed vastly from the preceding five. While Dallam and Hoyt (1983), McKinley et al. (1986), Dickman et al. (1996), Williams et al. (1986), and Kissler (1997) focused on the *attitudes* of faculty and administrators toward various retrenchment measures, Slaughter (1993, 1995, 1998), Kerlin and Dunlap (1993), and Rhoades (1993) focused on the *impacts* of institutional retrenchment on faculty by discipline, gender, and tenure rank and status. Based on data from American Association of University

Professors legal cases dealing with retrenchment, financial exigency, and program reduction between 1980 and 1990, Slaughter (1993, 1995) argued that higher education in the United States was being restructured as well as retrenched. She explained that resources were not simply being cut back in higher education institutions, they were being internally reallocated, and new resources were being concentrated on discipline areas that were already resource rich such as business, engineering, physical science, and computer and information science. Slaughter contended that retrenchment fell disproportionately on the humanities, fine arts, social sciences, and education, and that programs and faculty in disciplines with high female and minority enrolments were cut in inverse relation to their rates of growth. She concluded that disciplines that were able to position themselves close to the market and locate themselves in broad political discourse on their potential for private sector sales and product development were generally not cut, whereas those disciplines that were unwilling or unable to participate in the discourse of the market, productivity, and competitiveness were cut.

Kerlin and Dunlap's (1993) study supported Slaughter's (1993, 1995) conclusions. Based on an analysis of cutbacks implemented at the University of Oregon in 1991, Kerlin and Dunlap claimed that retrenchment had specific implications for faculty by discipline, gender, and tenure rank. They found that faculty in the "have-not" sectors of the university were more vulnerable to cuts than those in the "have" sectors. Programs cut at the University of Oregon were predominantly in the areas of human service, physical education, community health, and teacher education. Additionally, Kerlin and Dunlap argued that the cutbacks had a disproportionate impact on female faculty and students because the programs that were most deeply cut were in disciplines that served and employed the largest proportion of females. After the cuts, the percentage of female faculty employed in tenured/tenure track ranks at the University of Oregon fell from 27.0% to 24.6%. In the cut programs, 76% of enrolled students were female, while only 52% of all students were female. Kerlin and Dunlap concluded that because of the growing

influence of corporate and other private interests in the funding and policy-making aspects of American higher education, public universities' missions have shifted increasingly toward serving technocratic, economic, and private research interests and away from public interest educational objectives such as community service.

In contrast to the group specificity of Slaughter (1993, 1995) and Kerlin and Dunlap (1993), Rhoades (1993) found that retrenchment had led to weakened tenure rights in general throughout the U.S. In an examination of the retrenchment clauses of contracts in 42 institutions negotiated in the 1980s by the American Federation of Teachers (AFT), American Association of University Professors (AAUP), and National Education Association (NEA), Rhoades found they contained broadly expanded provisions for the firing of faculty, and further, that such provisions were often unrelated to financial exigency. He explained:

First, conditions justifying retrenchment went well beyond and fell far short of financial exigency, including fiscal, programmatic, and enrollment-related conditions. No contract had exigency as the sole rationale, other than cause, for firing faculty, and exigency was not mentioned in nearly half the contracts of four-year and 14 of 17 two-year institutions. Second, the rationales included short-term, non-crisis conditions. Only three contracts used the AAUP definition of exigency as threatening the institution's survival—in two of those cases the union was later decertified. Most contracts referred to conditions that included short-term fluctuations or decisions regarding mission and programmatic reorganization. Third, conditions justifying retrenchment were relatively undefined. Even the few contracts that used "demonstrably bona fide" language did not specify what constituted financial exigency. Conditions was the smallest and second smallest category in the contracts of four- and two-year institutions, respectively, and the second most often absent category in both. (p. 340)

Contrary to the Williams et al. (1986) and Kissler (1997) studies, Rhoades (1993) also found that the contracts gave faculty a limited and reactive role in decision making surrounding retrenchment, and gave administrators broad discretion. "In this version of shared governance," stated Rhoades, "administrators share information with faculty about decisions that managers have made. The contracts accorded no unequivocal rights to faculty and cast them at best in the role of

providing advice that was not binding . . . academics were outsiders responding to administrators who had already decided whether and where to retrench" (p. 340). He concluded:

Perhaps the most remarkable and disturbing feature of the contracts is that despite the "strategic" nature of decision making about retrenchment and reorganization, the process is unconnected to any ongoing planning efforts in or outside the institution and is isolated from most of the constituencies that will be affected by the restructuring. Managerial prerogatives in the contracts were extensive. Academic involvement was the exception to the rule of administrative discretion in retrenchment decisions that nearly always involve reshaping academic programs—cutting some, reorienting some, and investing in others. The retrenchment clauses established managers' rights to academically restructure higher education institutions as they wish. (p. 342)

Until recently, the primary weakness of the impact studies done by Slaughter (1993, 1995), Kerlin and Dunlap (1993), and Rhoades (1993) was that they were a small group based on limited sets of data. However, in 1998 Slaughter (1998) published the results of a study on the impact of retrenchment on public research universities in the U.S. based on national revenue and expenditure statistics between 1980-81 and 1990-91 compiled by the National Center for Education Statistics (NCES). In this study, Slaughter found that American public research universities generally had responded to reduced state funding and federal supply-side economic policies by investing resources in entrepreneurial research, the administration of such research, administration at large, and the support and administration of expensive programs aimed at competing for students able to pay high tuition, while the amounts of money devoted to the instruction of students were reduced. More specifically, she also found that resources were shifted toward graduate education and fields that were close to corporate, research, and high-end professional markets in the technostucture core of the economy such as business, the natural sciences, engineering, and mathematical and computing sciences, which tended to be male-dominated fields, and away from large undergraduate fields close to the social service function of the state such as arts, education, and nursing which contained large numbers of women and

minority faculty. Since resources were very often concentrated on departments that were already highly funded, Slaughter found that resource disparities among departments had increased, "with the rich getting richer, as it were, and the poor, poorer" (p. 225).

In general, the Slaughter (1993, 1995, 1998), Kerlin and Dunlap (1993), and Rhoades (1993) studies have provided important insight into higher education by highlighting the patterns of differentiation and stratification resulting from retrenchment and related resource allocation policies. This group of studies has contributed to the literature by directing both scholars and administrators of higher education toward acknowledging what appear to be growing power and resource disparities between administrators and faculty, men and women, minorities and majorities, and market-oriented and social service-oriented fields of study, as well as considering the long-term implications that these disparities may have on higher education and society at large. As yet, this line of inquiry has not been fully developed in the higher education literature, and represents a potentially fruitful area for future study.

Canadian Higher Education Contraction Literature

The review indicated that Canadian higher education contraction literature fell into five distinct bodies. The first body merely identified the trend toward financial decline in Canadian universities, outlined potential administrative problems associated with retrenchment, and noted the paucity of theoretical and practical research on the subject (e.g., Hardy, 1984; Skolnik & Rowen, 1984; Skolnik, 1986; Slaughter & Skolnik, 1987), and consequently is not be discussed further in this chapter. The second body discussed the implications of funding cuts for universities from different perspectives and posited two conflicting interpretations: one which depicted funding cuts to universities in terms of a crisis and the other in terms of an opportunity for renewal (e.g., Cutt, 1992; Decore & Pannu, 1991; Hay & Basran, 1991; Riffel, 1994; Sibley, 1993; Stager, 1992; Wotherspoon, 1991). The third body

of literature examined the impact of contraction on various systems of higher education in Canada (e.g., Clarke, 1986; Jones, 1991; Levin & Dennison, 1989; Skolnik, 1987; Small, 1994, 1995), and the fourth and fifth bodies examined the impact of contraction on institutions from macro- and micro-institutional perspectives respectively (e.g., Dennison, 1987; Ell, 1988; Hardy, 1987, 1988, 1990a, 1990b, 1996; Pawlak, 1992).

"Crisis" and "Opportunity" Literature

Jones (1990) noted that "universities in crises" was a recurring theme in Canadian higher education literature, and that such "crisis" literature was characterized by the contention that universities have reached a critical juncture in their history and that immediate steps must be taken to avoid catastrophe. Authors who have taken this view (e.g., Decore & Pannu, 1991; Hay & Basran, 1991; Stager, 1992; Wotherspoon, 1991) have approached the topic of funding cuts to higher education from a broad social perspective. They have equated a decline in dollars to a decline in the quality of education, and thus, imminent social disaster if more money for universities is not forthcoming.

Diametrically opposed to these "crises authors" were the "opportunity authors" (Riffel, 1994; Sibley, 1993; Cutt, 1992), who viewed funding cuts to higher education from the perspective of organizational effectiveness. They have interpreted the changes required to meet growing financial pressures in terms of an opportunity to amend the inadequate and dysfunctional structures of governance and management that they believed was typical of Canadian universities. Opportunity authors argued that universities were not well-equipped for constructive, institution-wide problem-solving because they were fragmented systems, divided by expertise and function, and called for changes in governance and management that would redress these structural problems.

The common thread among the crisis and opportunity literature was that the authors failed to provide convincing evidence to support their arguments. In both cases, their interpretations were based primarily upon opinion rather than empirical

research. Skolnik (1986) pointed out that quality in higher education was an elusive concept, and that no widely accepted consistent criteria for measuring quality existed. Indeed, the crises authors have not delineated specific criteria by which to measure the quality of education, and hence have not demonstrated any causal relationship between the quality of education and the level of government funding (Jones, 1990). Likewise, the opportunity authors did not delineate specific criteria by which to measure institutional adequacy, and thus did not demonstrate the inadequacy of current university structures. Moreover, both arguments did not address a critical issue; that was, how universities themselves have perceived and responded to government funding cutbacks. Have government funding cutbacks thrown universities in Canada into a state of crisis, or have they instigated a process of change that could lead to renewal? What has been the impact of government retrenchment policies on systems of higher education in Canada? What has been the institutional response to government policy initiatives and what has been its effect? These are questions that have been addressed in the three remaining bodies of Canadian higher education contraction literature.

Systemic Literature

Through content analyses of government and institutional documents, Clarke (1986), Skolnik (1987), and Jones (1991) examined the experience of the Ontario university system with financial retrenchment during the late 1970s and 1980s. They found that the government of Ontario, while indeed reducing funds, adopted a non-interventionist approach toward the spending of funds, leaving each institution to determine how its grant could be allocated most effectively. As a result, the basic structure and operation of the Ontario system itself remained stable and any changes that did occur were primarily at the institutional level. Although these studies did not investigate specific institutional responses, Clarke observed that some general responses included increased advocacy, fundraising, cooperation with industry, and interuniversity cooperation.

That government retrenchment policies have effected institutional rather than systemic change was corroborated by Small (1994, 1995). Through a survey of all Canadian university academic vice-presidents and a sample of deans of education, arts, and science in 1991, and a parallel survey of academic vice-presidents in Canadian colleges and technical institutions in 1993, Small (1994) concluded that reduced levels of funding had impelled change in Canadian higher education, but that such change had been "piecemeal and modest" and was of "institutional as opposed to system-wide scope" (p. 12). He found that the primary agents of change within institutions were boards and senior administrators, and that "the general effect of funding constraint has been to force the rethinking of institutional priorities and delivery mechanisms and to encourage strategies which either effect economies or enhance income" (1995, p. 119). Specific changes included rapidly increasing tuition fees, novel fundraising ventures, new internal cutback procedures, and administrative restructuring.

In contrast to the views of Clarke (1986), Skolnik (1987), Jones (1991) and Small (1994, 1995), Levin and Dennison (1989) claimed that systemic change had occurred in Canadian higher education at the community college level. In a survey and interview-based study of 14 community colleges throughout the country in the mid-1980s, Levin and Dennison found that decreased fiscal support was accompanied by increased direction by government, causing community colleges to become more tightly managed, more entrepreneurial, and less community-oriented. Specifically, these pressures had created a continuous need for college administrators to search for alternative funding sources, set priorities, eliminate low appeal or non-funded programs, pursue contracts with local, national, and international industry, establish self-financing programs and programs funded by government for selected purposes and individuals, and in general, to find ways to increase efficiency, productivity, and accountability within the organization. As a result, Levin and Dennison concluded that colleges had become "essentially provincial institutions, marching to a rhythm emanating from the relevant government ministry" (p. 56) with vocational

preparation, in the form of either specific job training or the upgrading necessary to prepare individuals for job training, being the overriding priority in most provinces.

Clearly, the systemic impacts of contraction on higher education in Canada is an area requiring further research. Not only have conflicting conclusions been drawn in this body of literature, but three of the six studies have examined higher education in Ontario exclusively. The systemic impact of contraction in other provinces has not been examined, and although Small's (1994, 1995) and Levin and Dennison's (1989) studies were national in scope, the presentation of their findings did not provide insight by province or geographic region. While it was unclear whether government retrenchment policies have induced systemic change in higher education throughout the country, it was clear that they have induced institutional change. Studies by Clarke (1986), Levin and Dennison (1989), and Small (1994, 1995) indicated that higher education institutions generally are retrenching, reallocating, and restructuring, as well as becoming more entrepreneurial in response to declining government financial support.

Macro-institutional Literature

The macro-institutional contraction literature confirmed that Canadian higher education institutions were retrenching, reallocating, and restructuring in response to reduced fiscal support. Dennison (1987) examined the University of British Columbia's (UBC) response to chronic underfunding in the late 1970s and early 1980s. He found that between 1975 and 1983, UBC's approach to budgetary shortfalls was to balance its budget through across-the-board cuts and short-term, one-time cuts such as non-replacement of retiring faculty and staff, reductions in service, equipment, and supplies, and deferral of maintenance and special projects. However, in 1983 when the provincial government froze operating grants to higher education and imposed 5% annual reductions in 1984 and 1985, UBC was thrown into "financial crisis, as 'conventional' methods of reductions had now been exhausted" (p. 139). Recognizing the "destructive impact of yearly financial cutbacks in the absence of a legitimate financial plan which addressed academic consequences," the

Senate Budget Committee developed a comprehensive planning document that "gave definition to the essential mission of the university and, in doing so, delineated the bases for determining the quality of any program and assessing its relationship to the central purpose of the institution" (pp. 138, 142). As a result, six programs were discontinued, 12 faculty members were terminated, and core program budgets were reduced by \$3.4 million, thereby bringing an end to the financial crisis. Dennison concluded that there was "a need for a more effective planning strategy in universities" in Canada, as the "recent crisis surrounding the universities in British Columbia . . . might well have been anticipated in a period of ill-health and diminished political support for education" (pp. 141, 143).

In contrast, Hardy (1987, 1988, 1990a, 1990b, 1996) argued that there was a need for more effective *political* strategy in universities. Hardy examined the response to financial restrictions of six universities from British Columbia, Ontario, and Quebec during the early 1980s and found that each institution employed very different strategies of retrenchment. These strategies included differential cutbacks based on a research and teaching productivity formula (Montreal) or an enrolment formula (McGill), salary freezes (McGill), administrative reorganization (Simon Fraser), program closure (UBC; Simon Fraser; Toronto), faculty dismissal (UBC), and personnel reduction through attrition and voluntary early retirement (Simon Fraser; Carleton). Hardy also found that the choice of retrenchment strategy and its outcome was dependent upon institutional context, which included such factors as size, diversity, formal structure, leadership, environment, and history. What was an acceptable retrenchment strategy in one institution was totally infeasible in another due to context. Moreover, the outcome of the strategy was contingent upon the process of implementation rather than the content of the strategy. Hardy found that the same retrenchment strategies had different outcomes in different institutions. Successful retrenchment strategy depended on successful political management, that is, the ability of administrators to generate commitment and avoid conflict between interest groups. Therefore, she concluded that different types of institutions required

different retrenchment strategies, and that "the key to success is matching the content of the strategy with a process of implementation that is consistent with the particular university context" (Hardy, 1987, p. 65).

In two respects the Canadian macro-institutional contraction literature reinforced the conclusions drawn in its American counterpart. First, it suggested that long-range, adaptive planning or "strategy" was critical to successful contraction in institutions of higher education. Second, it recognized institutional heterogeneity and stressed context and process over substance in the development and implementation of retrenchment strategy. The Canadian literature was noteworthy for drawing the attention of scholars and administrators to the political aspects of higher education retrenchment planning and implementation. The American literature suggested that goal, resource, and environmental assessment were the critical components of successful institutional strategic planning, and Hardy (1987, 1988, 1990a, 1990b, 1996) pointed out that political assessment was critical as well. She emphasized that how the plan is carried out is as important as the content of the plan, therefore, the implementation of the plan must be as strategic as the development of the plan itself.

As a body of knowledge, however, the Canadian macro-institutional contraction literature was not comprehensive and requires extensive further research. Only two scholars have examined specific institutional responses to government retrenchment policies, and have focused solely on institutions in British Columbia, Ontario, and Quebec. Virtually no research has been conducted on macro-institutional contraction in the remaining seven provinces and two territories of the country. Moreover, none of the extant literature is current. Both Dennison's (1987) and Hardy's (1987, 1988, 1990a, 1990b) studies were based on data from the early to mid-1980s and consequently have provided little insight into how Canadian institutions have responded to the challenges of retrenchment in the 1990s.

Micro-institutional Literature

Modelling the American micro-institutional research by Dallam and Hoyt (1983) and McKinley et al. (1986), Ell (1988) and Pawlak (1992) conducted related

studies on faculty perceptions of financial constraint in western Canadian institutions of higher education. The studies gathered data through survey questionnaires administered to faculty members during the late 1980s, with Ell's questionnaire directed to faculty in universities and Pawlak's to faculty in public colleges and technical institutes. The findings of the two studies were identical. Both Ell and Pawlak found that faculty members' interests centred on basic elements of their professional work activity. Generally, faculty perceived financial constraint as a significant problem, one that would continue into the foreseeable future, and one that had only negative impacts at their institutions. Specifically, faculty considered the impact of financial constraint as detrimental to the quality of instruction, their morale, their socio-economic status, the achievement of their career aspirations, the efficient use of resources, the overall effectiveness of academic staff, and the consideration of priorities. Ell and Pawlak also found that institutional responses to financial constraint that were acceptable in principle to faculty were those measures that had the lowest impact on professional work activities. Faculty considered as acceptable in principle lobbying for public support and additional funds, involvement of faculty members, conservation measures, voluntary alternatives to dismissal, and program development. Measures that were considered unacceptable in principle included reductions in facilities, equipment, academic support, salaries, and positions. Additionally, Ell and Pawlak discovered minor group differences by discipline area and province. They concluded their studies with two primary recommendations: (a) institutions should develop individualized retrenchment measures based on assessments of which measures are most acceptable by their faculties, and (b) faculty members should be involved in the development of institutional responses to financial constraint.

Similar to the macro-institutional literature, the Canadian micro-institutional body of contraction literature was not comprehensive and requires extensive further research. Ell's (1988) and Pawlak's (1992) studies examined the perceptions of faculty only at institutions in British Columbia, Alberta, Saskatchewan, and

Manitoba. No research has been conducted on the perceptions of faculty at institutions in other regions of Canada. Ell's and Pawlak's findings indicated differences in faculty perceptions by province, which suggested that the attitudes of Canadian faculty were not homogeneous and that further research by geographic region or province was warranted.

Additionally, research into the *substantive* as opposed to *perceived* micro-institutional impacts of contraction in Canadian higher education is required. Ell's and Pawluk's studies have shown that faculty perceived institutional retrenchment policies to have negative impacts on their professional work activities, but the substantive micro-institutional measures giving rise to these perceptions have not yet been explored. For instance, if the quality of instruction was perceived to have deteriorated as the result of retrenchment, in what specific ways did it deteriorate? Have faculty to student ratios changed? Have the number and kind of courses offered by departments changed? Have individual teaching responsibilities changed? These are just a sample of the many questions that need to be addressed in order to produce a comprehensive understanding of the micro-institutional impacts of contraction.

A final void in the Canadian micro-institutional literature was research of the kind conducted by Slaughter (1993, 1995, 1998), Kerlin and Dunlap (1993), and Rhoades (1993) in the U.S. which assessed the impacts of institutional retrenchment by discipline, gender, and faculty rank and tenure status, and concluded that not only were institutions concentrating funds in disciplines closely linked to the market, but that faculty tenure rights had been weakened. The Canadian macro-institutional research has indicated that institutions in Canada are restructuring and reallocating as well as retrenching, but the specific redistributive effects of retrenchment by discipline, gender, and other micro-institutional categories have not been investigated.

Summary

What impact has financial decline had on higher education in North America? The literature suggests that reduced fiscal support has led to fundamental change in the way that institutions of higher education operate. Research both in the United

States and Canada indicated that institutions were not merely cutting expenditures, but were retrenching, reallocating, and restructuring. In Mingle and Norris's (1981) words, institutions were "adapting" to decline through the "reconciliation of institutional goals to new circumstances" (p. 56). Generally, scholars have emphasized process over substance in their analyses of contraction, and have pointed to participatory strategic planning as the most effective and widely applicable contraction process available to institutions facing financial decline. There was consensus that no widely applicable or universal substantive contraction measures existed. Higher education in North America was systemically and institutionally heterogeneous, and consequently institutions have adopted a mixture of substantive measures drawn from four broad categories—expenditure control, new revenue generation, reorganization, and program selectivity—and have tailored them to their unique contexts.

The impact of contraction on higher education has been extensively researched in the United States but only modestly in Canada. In the U.S., the bulk of the research has been conducted from a macro-institutional perspective and has concerned itself primarily with long-term institutional viability, economy, and efficiency. Far less research has been conducted from micro-institutional perspectives, but has yielded important insight. For instance, studies conducted by Dallam and Hoyt (1983), McKinley et al. (1986) and Dickman et al. (1996) indicated that staff preservation was a priority among institutional constituents regardless of position, discipline, gender, or type of institution. Studies by Williams et al. (1986) and Kissler (1997) suggested that the level of faculty morale at an institution was unrelated to the degree of faculty participation in the retrenchment decision making process. Rhoades (1993) has shown that faculty contracts negotiated during periods of retrenchment have resulted in weaker faculty tenure rights. Finally, studies by Slaughter (1993, 1995, 1998) and Kerlin and Dunlap (1993) suggested that institutions in the U.S. have responded to retrenchment by shifting funds toward male-dominated, graduate education fields with close ties to the market, such as business, the natural sciences, engineering, and

computing science, and away from undergraduate fields close to the social service function of the state, such as arts, education, and nursing, which contain large numbers of women and minority faculty. While several of these micro-institutional studies have contradicted the wisdom of the macro-institutional body of literature, more corroborative micro-institutional research must be undertaken before widely accepted explanations can be revised.

In Canada, more research into every aspect of contraction in higher education—systemic, macro-institutional, and micro-institutional—is required. Conflicting conclusions have been reached regarding the systemic impacts of contraction in Canadian higher education, and little research has examined higher education systems outside the province of Ontario. Research into the macro-institutional impacts of contraction has also been sparse. Only two scholars have studied macro-institutional contraction in Canada, their studies are dated, and have focused solely on institutions in British Columbia, Ontario, and Quebec. Almost no research has examined macro-institutional responses to government retrenchment policies in the rest of the country or how institutions have responded to the challenges of retrenchment in the 1990s. Nearly the same assessment can be applied to Canadian micro-institutional research. Only two studies have examined the impact of contraction in higher education from a micro-institutional perspective, they have examined faculty perceptions of retrenchment only, and have focused on institutions in British Columbia, Alberta, Saskatchewan, and Manitoba. No research has been conducted on faculty perceptions outside western Canada, on substantive retrenchment measures giving rise to faculty perceptions, or on the redistributive effects of retrenchment by micro-institutional categories such as discipline, department, and gender.

CHAPTER 3

METHODS

This chapter describes the research strategy that was used to conduct this study, as well as the methods that were employed to collect, analyze, and report the data. Additionally, the delimitations and limitations that apply to the study are identified. The purpose of this chapter is to provide information that will allow the audience to decide the extent to which the researcher has made sensible and appropriate methods decisions given the purpose of the inquiry and the nature of the questions asked.

Approach to the Methods

The approach to the selection of methods was consistent with what Patton (1990) referred to as "pragmatism and a paradigm of choices" (p. 39). "A paradigm of choices," he explained, "rejects methodological orthodoxy in favor of *methodological appropriateness* as the primary criterion for judging methodological quality. The issue then becomes not whether one has uniformly adhered to prescribed canons of . . . [particular research traditions] but whether one has made sensible methods decisions given the purpose of the inquiry, the questions being investigated, and resources available. The paradigm of choices recognizes that different methods are appropriate for different situations. Situational responsiveness means designing a study that is appropriate for a specific inquiry situation" (p. 39).

Research Strategy

This study employed a case study strategy defined by Merriam (1988) as "an intensive, holistic description and analysis of a single instance, phenomenon, or social unit" (p. 21). "The main concern of case studies versus surveys or experimental research," she elaborated, "is 'interpretation in context' (Shaw, 1978, p. 13). Case studies are particularistic in that they focus on a specific situation or phenomenon; they are descriptive; and they are heuristic—that is, they offer insights into the phenomenon under study" (p. 21).

This strategy was chosen as a consequence of the review of the higher education literature, which suggested that although it was apparent that North American institutions were transforming themselves in response to reduced public financial support, the phenomenon was neither well documented nor well understood. In particular, it was pointed out that there was a dearth of *comprehensive* information about any one institution's experience (Phillips et al., 1996, p. 17), and recommended that case study methods be employed to examine institutions that have implemented retrenchment processes and documented outcomes (Dickman et al., 1996, p. 467).

The appropriateness of case study to the examination of this phenomenon was supported in the methodological literature by Schramm (1971), cited in Yin (1994), who suggested that a principal use of case study was "to illuminate a *decision* or set of decisions: why they were taken, how they were implemented, and with what result" (p. 12). The research questions posed in Chapter 1 were constructed to achieve this type of illumination. To recapitulate, the General Research Question that guided this study was "How have changes in funding and related policies in higher education in Alberta since 1994 affected macro- and micro-institutional operations at the University of Alberta?"

To address the General Research Question, data were sought in connection with the following Specific Research Questions:

1. What specific changes in policy have occurred in the funding of public institutions of higher education in Alberta since 1994?
2. How has central administration at the University of Alberta responded to the changes in provincial funding policy since 1994?
3. How has the macro-institutional response of the University of Alberta affected the operations of academic departments from the perspective of department chairs?

The decision to examine a single case rather than multiple cases was dictated by the researcher's time and resources. As Wolcott (1994) explained, "the final determination as to scope must be made upon the basis of the problem to be

addressed. My general advice is that a lone . . . researcher, working with inevitable limitations of time and resources, ordinarily should pursue one case study in depth [instead of several cases superficially]" (p. 183). Similarly, in choosing a case, Stake (1995) suggested that "to maximize what we can learn If we can, we need to pick cases which are easy to get to and hospitable to our inquiry, perhaps for which a prospective informant can be identified and with actors (the people studied) willing to comment on certain draft materials" (p. 4). The University of Alberta was selected as the case for this study because the researcher's accessibility to and familiarity with the institution and its staff were conducive to collecting the sources of data required to complete the study. A detailed description of the University of Alberta is provided in Chapter 4.

Data Sources and Collection

Intensive case studies do not imply the use of one particular type of evidence or method of data collection. They represent a research strategy where the analysis is based on an assortment of evidence from 'within' the case case studies principles suggest that researchers develop an understanding of real settings and then search for a range of explanations or interpretations Because the research setting of a case cannot be controlled, the author has to use evidence from different viewpoints and time perspectives. (Cunningham, 1997, pp. 402-403)

Consistent with Cunningham's observation, the data for this study were collected from a variety of sources representing three different viewpoints spanning multi-year periods of time. The viewpoints included a systemic perspective, a macro-institutional perspective, and a micro-institutional perspective. Each perspective corresponded to one of the three Specific Research Questions. The sources of data and methods of collection for each of these perspectives are described below.

Systemic Perspective

Data collected to provide the systemic perspective sought in Specific Research Question 1 included Alberta government legislation, as well as policy documents, annual reports, news releases, and correspondence from the Alberta Ministry of Advanced Education and Career Development. The documents spanned the period

1994-1997, and were located through inquiries to Ministry officials, searches of government websites, and library searches. Each of these documents was recorded in the list of references compiled for this study, with authorship attributed to either the Government of Alberta, Province of Alberta, or Alberta Advanced Education and Career Development.

Macro-institutional Perspective

Data collected to provide the macro-institutional perspective sought in Specific Research Question 2 included institutional policy documents, reports, planning documents, budget documents, financial statements, correspondence, and various other publications. The documents spanned the period 1983-1998 and were located through discussions with university administrators, searches of institutional websites, and library searches. Each of these documents was recorded in the list of references compiled for this study, with authorship attributed to the University of Alberta.

Micro-institutional Perspective

Data collected to provide the micro-institutional perspective sought in Specific Research Question 3 consisted of interviews with 14 academic department chairs from the University of Alberta. Following the preparation of a detailed budgetary analysis, the department chairs were selected on the basis of institutional representativeness, involvement in restructuring, and extent of budget cuts. The researcher's committee members assisted in the selection of the department chairs. A copy of the budgetary analysis is provided in Appendix H. Descriptions of the department chairs and their departments are provided in Chapter 7.

Interview process. Each participant completed one 30 to 120 minute semi-structured, audio-taped interview at his office with the researcher in April 1997. The interview guide was prepared in collaboration with two department chairs not included in the study. A copy of the interview guide is provided in Appendix C. A semi-structured format was chosen for the interview process based upon Patton's

(1990) advice that such an approach would bring focus to the interview, yet allow for flexibility and responsiveness to emerging issues:

An interview guide is prepared in order to make sure that basically the same information is obtained from a number of people by covering the same material. The interview guide provides topics of subject areas within which the interviewer is free to explore, probe, and ask questions that will elucidate and illuminate that particular subject. Thus the interviewer remains free to build a conversation within a particular subject area, to word questions spontaneously, and to establish a conversational style—but with the focus on a particular subject that has been predetermined. (p. 283)

Transcription and editing. The audio-tapes of the interviews were transcribed by a typist with considerable experience in transcription. The researcher instructed the typist to transcribe the audio-tapes using exactly the same words as the participants, including incomplete sentences and grammatical errors, but excluding “ums” and “ahs.” The typist was also instructed to indicate in the transcripts any inaudible words or passages, pauses, and interruptions in the recording. Following transcription by the typist, the researcher reviewed the transcripts while listening to the tapes and, where possible, filled in words and passages that were inaudible to the typist. The revised transcripts were then forwarded to the participants for their review and explication (see Appendix D), and consequent revisions were made.

Passages quoted from the transcripts were edited in accordance with Patton's (1990) general standard of “capturing what people say in their own words” (p. 352), and the following specific guidelines delineated by Morse (1994):

It is important not to edit the essence of the quotation from the passage, but at the same time it is legitimate to remove the “mmms” and the pauses unless the intonation and expression are important for the meaning. The researcher may also remove irrelevant phrases and sentences, replacing them with ellipses. He or she should pay close attention to the punctuation . . . to ensure that commas and periods (indicating pauses and breaks in the speech) are correctly used to maintain the speaker's expression The researcher must check carefully that none of the quotations used makes a speaker recognizable through some contextual reference. (p. 232)

Ethical procedures. In addition to obtaining ethical clearance for the study from the appropriate authorities at the University of Alberta, several specific procedures were undertaken to ensure that the interview participants were treated in an ethical manner. By way of the Letter of Request to Participate, a copy of which is contained in Appendix A, the participants were informed of the expectations for their involvement, their rights to withdraw from the study at any time, and their power of veto over the data they supplied. This information, along with a description of how the anonymity of the participants would be protected, was reiterated in the Letter of Consent to Participate that was signed by each participant prior to the interview. The Letter of Consent also offered to provide each participant with a copy of the study's findings and conclusions for his approval prior to the researcher's final oral examination. This offer of prior approval was declined by all of the participants. A copy of the Letter of Consent to Participate is provided in Appendix B.

Following transcription of the interviews, the typist was instructed to destroy all copies of the transcripts in her possession, and reminded of the importance of maintaining the confidentiality of the participants. Copies of the transcripts were forwarded to the participants, along with a covering letter that invited their feedback and reiterated their right to withdraw from the study at any time. A copy of the Letter Requesting the Participants to Review the Interview Transcripts is provided in Appendix D. Five participants responded with comments that were incorporated into the final version of the transcripts that were used for analysis. At the same time, two of these participants requested that their consent be obtained prior to the quotation of any passages from their transcripts. This consent was obtained in writing by the researcher following analysis of the transcript data. A copy of the Letter Requesting Selected Participants to Review Their Interview Comments Selected for Quotation in the Study is provided in Appendix E.

Data Analysis

To analyze means to break down a whole into its component or constituent parts. Through reassembly of the parts one comes to understand the integrity of the whole. (Schwandt, 1997, p. 5)

Patton (1990) and Kvale (1996) respectively pointed out that there is no "right way" (p. 381) or "magical tool" (p. 187) to analyze data. Rather, they suggested that procedures of analysis would vary depending upon the study's purpose (Patton, 1990, p. 374), and the questions that were asked at the start of the investigation (Kvale, 1996, p. 187). The data collected for this study were analyzed sequentially in sets corresponding to the order of the three Specific Research Questions. Each set of data was analyzed in light of the Specific Research Question that it addressed, and went through three successive stages of analysis—organization, description, and interpretation. The structures of Chapters 5 through 7, which report these data, reflect the three stages of analysis. In the follow sub-sections, these analyses are explained in greater detail.

Organization

This first stage of analysis consisted of establishing frameworks for managing the large amounts of data collected in connection with each of the Specific Research Questions. For the systemic and macro-institutional perspectives reported in Chapters 5 and 6, the documentary data were broken down into major policies and initiatives as identified in the documents themselves. The policies and initiatives were recorded in the order of their occurrence. For the micro-institutional perspective reported in Chapter 7, the interview data were broken down into two major categories: (a) comments pertaining to human resources, and (b) comments pertaining to material resources. The categories were recorded in the order of their importance as indicated by the interview participants. These initial frameworks of analysis appear as flush-left, level three headings in each of the relevant chapters.

Description

This second stage of analysis consisted of filling in with descriptive detail the frameworks established in the initial phase of analysis. For the systemic and macro-institutional perspectives reported in Chapters 5 and 6, the major policies and initiatives were broken down into the specific strategies that comprised them. In turn, each strategy was described in terms of its intention and implementation. In light of the general research question guiding the study, outcomes of the strategies at the macro-institutional level were also described in Chapter 6. For the micro-institutional perspective reported in Chapter 7, the two major categories were broken down into sub-categories, which were derived through cross-case analysis of the interview data. In turn, each sub-category was described in terms of specific issues mentioned by the interview participants. The descriptions noted differences as well as similarities in the comments between the participants. In each relevant chapter, these descriptions appear as the section between the Introduction and the Summary.

Interpretation

This third stage of analysis consisted of explaining the data thematically. This involved reconceptualizing the descriptive data in terms of unifying and/or dominant ideas, and then explaining the data in relation to those ideas. In each relevant chapter, this interpretive analysis appears as the Summary and Discussion.

Transparency of Method

Transparency of method refers to the explicit reporting of data and procedures, which Huberman and Miles (1994, p. 439) have pointed out is necessary so that (a) the audience will be confident of, and can verify, reported conclusions; (b) secondary analysis of the data is possible; (c) the study could in principle be replicated; and (d) fraud or misconduct, if they exist, will be more trackable. In addition to the explication of the methods of data collection and analysis presented above, transparency was provided for in this study through the extensive display of data throughout the report. This display included the following elements:

(a) frequent in-text referencing to the sources of data referred to; (b) the extensive use of direct quotations from the data to support descriptive and interpretive text; and (c) the presentation of key data in the form of tables both within and appended to the report.

Delimitations

This study had the following delimitations:

1. The study was delimited to examining funding and related policy change in higher education in the province of Alberta between 1994 and 1997.
2. The study was delimited to examining the impact of the funding and related policy change on macro- and micro-institutional operations at the University of Alberta between 1994 and 1997.
3. The study was delimited to using documentary data to represent the macro-institutional perspective.
4. The study was delimited to using interview data to represent the micro-institutional perspective.
5. The interview participants selected were restricted to academic department chairs.
6. The number of academic department chairs interviewed was delimited to fourteen.

Limitations

This study had the following limitations:

1. The interview data was limited to information which the participants could recall at the times the interviews occurred.
2. Due to the purposively-selected, single case research strategy employed, the generalizability of the study was limited to theoretical elaboration.

CHAPTER 4

PROFILES OF THE ALBERTA SYSTEM OF HIGHER EDUCATION AND THE UNIVERSITY OF ALBERTA

This chapter presents selected characteristics and circumstances of the Alberta system of higher education, the University of Alberta, and the department chairs who participated in this study. The purpose of this chapter is to provide contextual information that is relevant to the presentation and analysis of the findings in subsequent chapters and that will promote the transferability of the findings to other systems and institutions of higher education. The first section describes the size, structure, and composition of Alberta's higher education system, how the province governs the system and the institutions within it, and historical factors that influence current higher education policy in the province. The second section describes the size, structure, and composition of the University of Alberta, its macro- and micro-institutional mechanisms of governance, and its financial history prior to 1994. The chapter concludes with a summary of the information presented in each section.

The Alberta System of Higher Education

Overview

The Alberta system of higher education is a comprehensive system that provides a broad range of programs and services to the population throughout the province. The system consists of both public and private educational organizations. Public organizations receive the majority of their funding from the Alberta government by way of grants, and include four universities, 11 colleges, two technical institutes, The Banff Centre, four provincially administered vocational colleges, four community consortia which provide credit programs and courses in areas that are distant from postsecondary institutions, and 84 Community Adult Learning Councils that offer general interest, non-credit courses at the local level (Alberta Advanced Education and Career Development, 1997g, pp. 102-105). Private organizations

include four accredited liberal arts colleges which receive a minor portion of their funding from the provincial government, and 131 licensed vocational schools which receive no direct government funding (Alberta Advanced Education and Career Development, 1997g, p. 105).

The higher education system in Alberta has the highest participation rate of any system in Canada. With 40.1% of its population aged 17 and older participating in all types of programs and courses, Alberta is well above the national average of 34.8% (Alberta Advanced Education and Career Development, 1996a, p. 8). As shown in Table 4.1, the six primary sectors of the Alberta higher education community serve approximately 120,000 FTE students per annum. The university sector is the largest, accounting for more than 50% of the annual total FTE enrolment in the province. Additionally, the community consortia and adult learning councils annually serve over 200,000 course registrants, and the private vocational schools provide licensed programs to another 19,000 participants per annum (Alberta Advanced Education and Career Development, 1995, pp. 55-59; 1996, p. 51).

Table 4.1
Full-time Equivalent (FTE) Enrolment in All Postsecondary Programs in Alberta, 1994-97

Sector	1994-95	1995-96	1996-97
University	59,936.9	61,275.2	63,928.9
Public College	27,126.6	27,808.9	28,800.0
Technical Institute	16,276.0	16,882.7	17,200.0
Private College	2,606.3	2,479.6	2,270.0
School(s) of Nursing	366.0	29.0	-
Vocational College	12,271.0	11,896.1	10,850.0
TOTAL	118,582.8	120,371.4	123,048.9

Note: From Alberta Advanced Education and Career Development (1997g, p. 109). FTEs are as reported by institutions. The Ponoka School of Nursing, the last remaining hospital-based school of nursing in the province, was closed at the end of the 1995-96 fiscal year.

Governance and Administration

The ministry. Responsibility for the provision and operation of the higher education system in Alberta lies with the provincial legislature acting through the Ministry of Advanced and Career Development (AECD). AECD is responsible for system-wide planning, coordination, and control; the majority of government funding for public institutions; the administration of the four Alberta Vocational Colleges (AVCs); as well as providing learning and training programs for adult Albertans, career counselling, information services, and apprenticeship and trade certification programs (Alberta Advanced Education and Career Development, 1996a, p. 46).

The ministry is composed of five divisions: Apprenticeship and Industry Training; Finance, Administration and AVC Support; Information and Policy Services; Learner Assistance; and System Funding and Accountability. Six cross-division teams—Human Resource Planning, Information Management, Learner Needs, Operation Issues Steering Group, Policy Coordination, and Strategic Planning—coordinate ministry decision-making and facilitate communication between divisions. Five special boards or councils—the Students Finance Board, the Apprenticeship and Industry Training Board, the Alberta Council on Admissions and Transfer, the Private Colleges Accreditation Board, and the Private Vocational Schools Advisory Council—further assist the minister and complement the functions of the department (Alberta Advanced Education and Career Development, 1996a, pp. 46-48). The organizational structure of the Ministry of Advanced Education and Career Development is depicted in Figure 4.1.

Institutional governance. The Alberta government prescribes specific forms of governance for public institutions of higher education in the province. With the exception of the AVCs, all public institutions are governed by independent bodies under the authority of one of the following legislative acts: Banff Centre Act, Colleges Act, Technical Institutes Act, or Universities Act. For the purposes of this study, the Universities Act is the pertinent piece of legislation. Consequently,

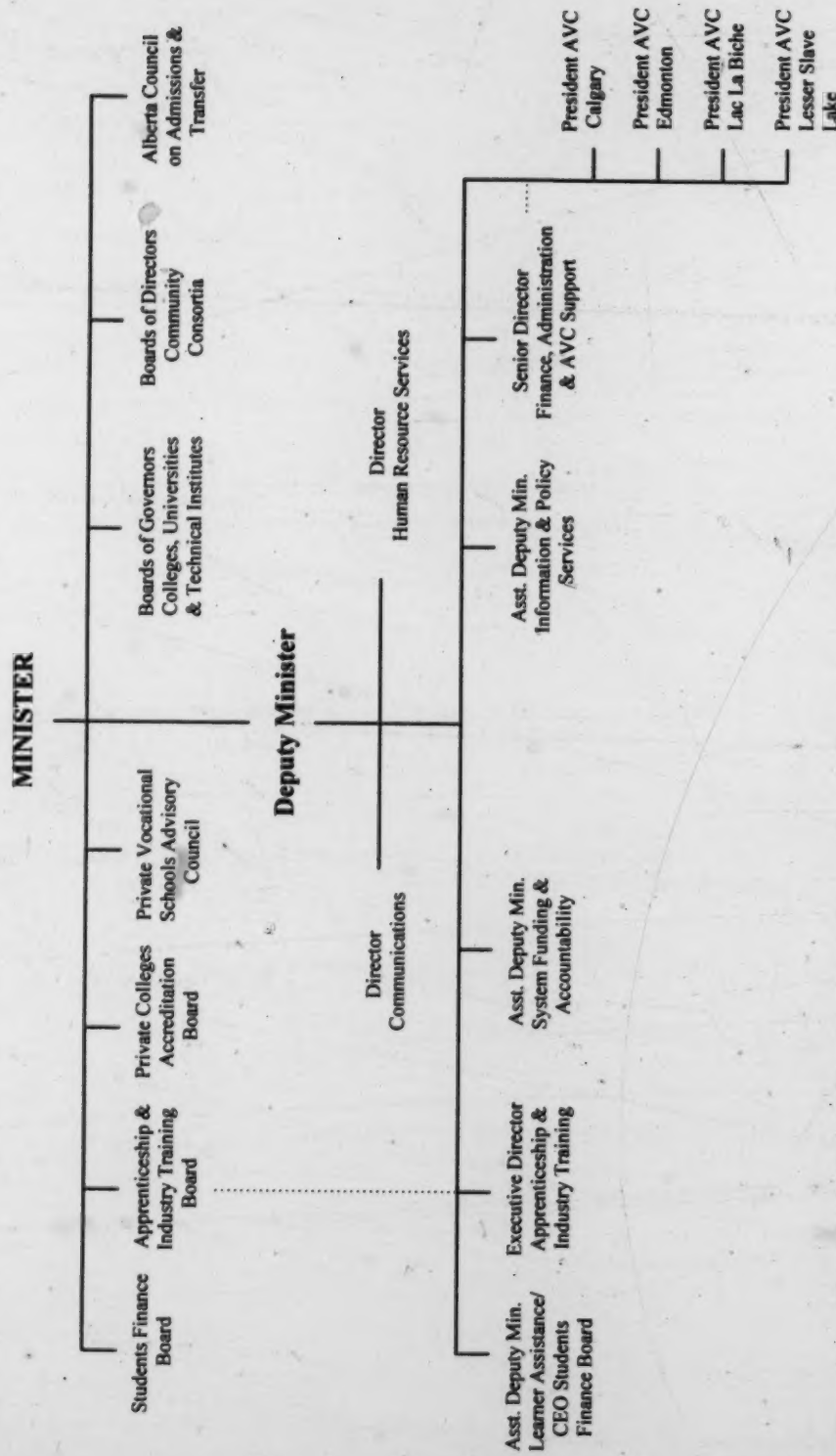


Figure 4.1. Alberta Advanced Education and Career Development Organization Chart.

From Alberta Advanced Education and Career Development (1997g, p. 9).

the structure, roles, and responsibilities of university sector governance are presented in detail while those of the non-university sector are briefly outlined.

University sector. The Universities Act decrees that universities in Alberta are to be governed by legally incorporated boards consisting of a chairman and eight representatives of the general public appointed by the Lieutenant Governor in Council; the chancellor; the president; and two alumni, one member of the senate, two members of the academic staff, two undergraduate students, and one graduate student appointed by the Minister. Each board is responsible for the "management and control of the university and of its property, revenue, business and affairs" (Province of Alberta, 1994, p. 13). Responsibility for academic affairs is assigned to a general faculties council (GFC) which is a separate governing body subject to the authority of the board. Each GFC is chaired by the president and is composed of ex-officio, elected, and appointed members drawn from administration, faculty, and the student body.

Board governance is largely autonomous, although certain decisions are subject to the approval of either the Minister or the Lieutenant Governor in Council. These include the determination of fees for instruction; the incurring of annual deficits; the lease or sale of university lands; the borrowing of money; the issuing of notes, bonds, debentures, or other securities; the creation, alteration, or extension of pension plans; major capital expenditures; and the reduction, deletion, or transfer of a program of study. Each board must submit an annual report to the Minister showing the revenues and expenditures during its last fiscal year, together with a complete statement of the reserve funds of the university and an audited balance sheet of its financial transactions during the year. The Minister may investigate a university at any time and the university must provide any information requested.

The Universities Act also decrees that each university shall have a legally incorporated senate of up to 62 members whose administrative responsibilities are to elect a chancellor every four years and to authorize the conferring of honorary degrees. The chancellor is the chairman of the senate and an ex-officio member of

the board, whose responsibilities are to represent the public interest in the university, to act as the representative of the university at ceremonial occasions, to preside over all degree-conferring ceremonies of the university, and to confer the degrees. A broader responsibility of the senate is to act as a community liaison. As such, the senate has the power "to inquire into any matter that might tend to enhance the usefulness of the university" (Province of Alberta, 1994, p. 12) and to make any report and recommendations that it considers advisable to the board, GFC, or Minister.

The basic macro-administrative structure of each university is set out in the Universities Act. Each board must appoint a president who acts as chief executive officer and vice-chancellor of the university, one or more vice-presidents, a registrar, and a dean for each faculty. The president is entrusted with the general supervision over and direction of operation of the academic work and business affairs of the university, and may make recommendations to the board on any matter affecting the university. A vice-president has the powers, duties, and functions that are assigned by the board on the recommendation of the president. For a university with more than one vice-president, the board must name a senior vice-president who is the acting president in the event the president is absent or incapacitated. A dean acts as the chief executive officer of the faculty, and is responsible for the general supervision over and direction of the academic work and instructional staff of the faculty, and of the officers and employees employed in connection with that work.

Each university must also have a deans' council and a faculty council for every faculty. The deans' council is an advisory body to the president, the board, and the GFC that consists of the president who is chairman, the vice-presidents, the dean of each faculty, and any other officers of the university designated by the council. A faculty council is subject to the control of the GFC and bears responsibility for the programs of study, examinations, admissions and withdrawals, and granting of degrees within the faculty. Faculty councils consist of the respective deans acting as chairs, the president, all full-time academic staff of the faculty, any representative of a

professional association having regulatory powers over a profession for which a faculty offers a program of study, and other persons appointed by the GFC upon faculty council recommendation.

The structure of governance for Alberta universities as specified in the Universities Act is depicted in Figure 4.2. A slightly different structure is prescribed for Athabasca University in a regulation approved by the Lieutenant Governor in Council. This regulation established a corporation entitled The Athabasca University Governing Council which performs the duties of a board, GFC, and senate. This unicameral body consists of a chairman appointed by the Lieutenant Governor in Council, the president, the vice-presidents, one student, one non-academic staff member, five academic staff members, a tutor, and 14 representatives of the general public (Andrews, Holdaway, & Mowat, 1997, p. 72).

Non-university sector. Alberta's public colleges, technical institutes, and The Banff Centre operate respectively under the authority of the Colleges Act, the Technical Institutes Act, and the Banff Centre Act. The colleges are governed by legally incorporated boards of governors appointed by the Minister that are subject to the same kinds of restrictions as university boards. Each college also has an academic council that may make recommendations and submit reports on academic matters to the college board. The academic council is normally composed of the college president, the chief financial officer, three senior academic officers, up to 10 academic staff, up to 10 elected students, and up to five additional members appointed by the board. The technical institutes are also governed by boards of governors in conjunction with academic councils whose powers and duties are similar to those of the public colleges. The Banff Centre is governed by a board of governors whose responsibilities are similar to those of Athabasca University (Andrews et al., 1997, pp. 72-73). During the period covered by this study, the AVCs were administered directly by AECD (Alberta Advanced Education and Career Development, 1997g, p. 9). However, in April 1998 they became board-governed institutions.

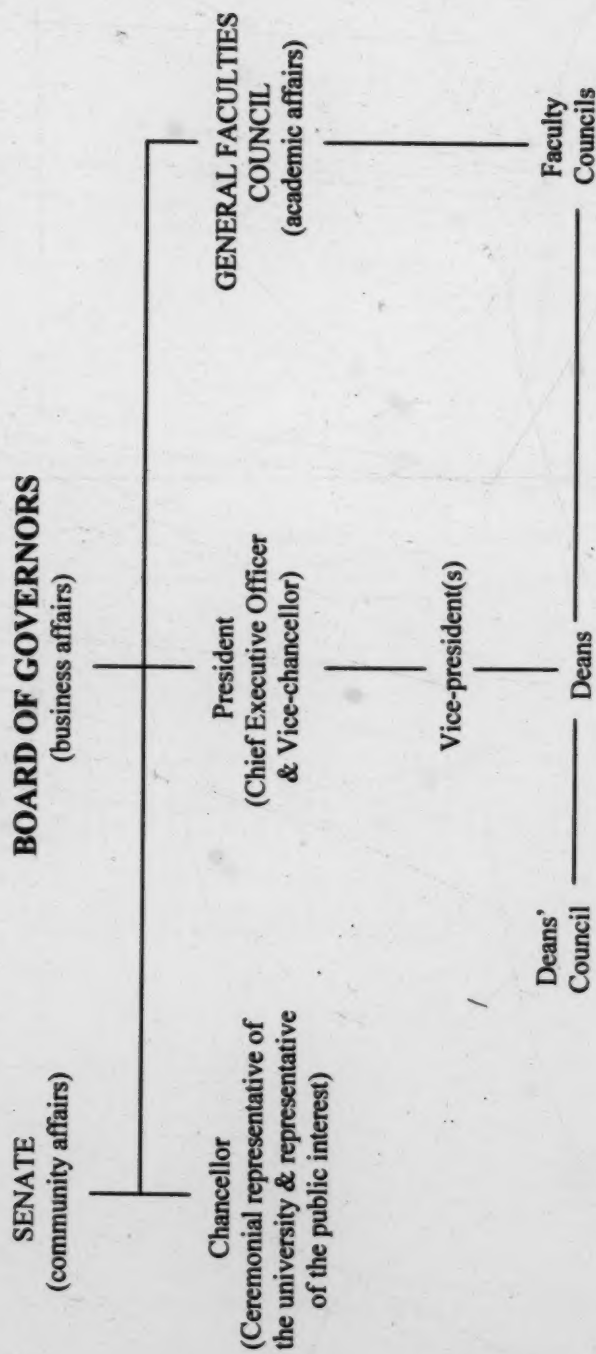


Figure 4.2. Basic Structure of Governance in Alberta Universities.

Conceptualized from information provided in the *Universities Act* (Province of Alberta, 1994).

Recent History

In 1994, sweeping change was introduced to the funding and administration of higher education in Alberta with the release of AECD's *Three-year Business Plan* (1994a). The plan confirmed an earlier announcement that the Minister intended to reduce the departmental budget by 15.8%—from \$1.3 billion to \$1.1 billion—by 1996-97 through annual reductions of 11%, 7%, and 3% in institutional operating grants, and to restructure the administration of the postsecondary system to achieve four goals: increased accessibility, improved responsiveness, greater affordability, and more accountability. While the extent of the reductions and some specifics of the restructuring, which are presented in Chapter 5, stunned the higher education community, the reduction and restructuring initiatives themselves came as no surprise. Indeed, such initiatives had been anticipated since 1992 when Ralph Klein became the new premier of the province and AECD began a strategic planning process to develop a policy framework for future system development. The following sub-sections discuss the significance of the change in provincial governance, its influence on the development of AECD policy, and the outcome of AECD's strategic planning process.

New government. Ralph Klein, elected Conservative Party leader and Premier of Alberta in December 1992, is credited with engineering a "revolution" in governance in Alberta (e.g., Bruce, Kneebone, & McKenzie, 1997; Laxer & Harrison, 1995; Lisac, 1995). The revolution stemmed from the ongoing implementation of a series of "new right" restructuring, downsizing, and privatization measures directed toward creating "a prosperous Alberta with an open, accountable government that lives within the taxpayers' means and delivers quality services at a low cost" (Government of Alberta, 1994, p. 1). Known internationally as "Canada's pioneer of lean, mean government" (Alberta on the right track, 1997), Klein's central focus has been the elimination of the provincial deficit through large-scale reductions in government spending.

The Klein administration's first budget in May 1993 not only froze expenditures in most departments at the previous year's level, but was accompanied by the announcement that the government intended to balance the provincial budget by 1996-97 through a 20% reduction in overall expenditures. This intention subsequently was enshrined in legislation as the Deficit Elimination Act of 1993. Commensurate with the new policy was the implementation of a business-planning approach to departmental budgeting requiring all departments to prepare annual three-year "business plans" defining their core businesses, goals, strategies to meet those goals, and performance measures to monitor progress (Boothe, 1997). Each departmental plan was to be prepared within the context of the government's broad plan for accountability, quality, and low cost with the Treasury Board setting the fiscal parameters.

New Directions. Coinciding with provincial mandates to reduce expenditures, maintain quality, and increase accountability was AECD's strategic planning process to develop a new policy framework that would reflect the educational needs of Albertans in the 21st century. The process had begun in August 1992 with preliminary submissions from institutional governing, faculty, and student bodies, and continued in 1993 with a budget workshop and regional consultations in 12 communities. The results of these consultations were then integrated with the provincial mandates to generate the goals of increased accessibility, improved responsiveness, greater affordability, and more accountability set out in AECD's *Three-year Business Plan* in February 1994. Following a round table discussion of the budget, a draft white paper was prepared and distributed in March, and further consultation meetings were held in Edmonton and Calgary during May. In October 1994 AECD released a culminating policy document entitled *New Directions for Adult Learning in Alberta* (Alberta Advanced Education and Career Development, 1994b; hereinafter referred to as *New Directions*) that was heralded by the Minister as a "road map" for system renewal (Letter from the Minister attached to *New Directions*).

Essentially, however, *New Directions* only affirmed the content of the *Three-year Business Plan* (1994a) and the earlier Klein directives. As shown in Table 4.2, the document elaborated upon the four goals posited in the *Three-year Business Plan*—accessibility, responsiveness, affordability, and accountability—and outlined 22 general strategies to achieve them. For specific actions to be taken to support the strategies, *New Directions* (p. 5) directed readers back to the *Three-year Business Plan*. It was in the *Three-year Business Plan* that the significance of the strategies and the intended new directions for the postsecondary system in Alberta were made explicit. The *Three-year Business Plan* stated that the strategies and their corresponding actions were designed to foster the development of a system possessing the following key features:

- Access to learning opportunities for students has increased significantly.
- The system is more responsive to learner needs.
- Quality remains a priority.
- Priority is given to meeting the knowledge and skill requirements of the labour market.
- On-the-job education and training has increased significantly.
- A competitive and healthy environment exists for advanced research and development.
- Institutions and the Department are accountable for outcomes.
- Individual responsibility is fostered.
- Transferability of program credits has substantially increased, enabling career laddering for students, and reduced costs.
- Grants to institutions encourage and reward productivity and quality performance.
- Public expenditures are cost-effective (p. 14).

Many of these key features, such as responsiveness to labour market needs, a competitive environment, individual responsibility, accountability, productivity, performance, reduced costs, and cost-effectiveness, are hallmarks of a free market orientation and the bedrock of new right ideology (see Laxer & Harrison, 1995). Recent analyses of *New Directions* (Emery, 1997; Marino, 1995; Rae 1996) have suggested that the central thrust of the strategies contained in the document is to shift

GOALS			
Accessibility: The system will increase access for motivated Albertans to a diverse range of quality learning opportunities.	Responsiveness: The system will increase its responsiveness to the needs of the individual learner and to the social, economic and cultural needs of the province.	Affordability: The system will provide quality learning opportunities to the greatest number of Albertans at the lowest possible cost.	Accountability: The system will increase its accountability to Albertans for the results of publicly funded learning opportunities.
STRATEGIES			
1.1 Establish an Access Fund to increase the number of learning opportunities available to Albertans. 1.2 Develop a plan to prepare for future enrolment pressures. 1.3 Expand the use of learning technology and alternate forms of program delivery to create more opportunities to learn. 1.4 Develop alternative routes to employability to assist Albertans not pursuing a conventional post-secondary education. 1.5 Demonstrate the benefits of private sector investment in human resources to develop more employee training opportunities. 1.6 Develop initiatives to help Albertans overcome barriers to participating in learning opportunities. 1.7 Develop alternatives for Albertans receiving income support to increase their employability and self-reliance.	2.1 Create new paths for completing degrees that build on the completion of diploma programs. 2.2 Introduce the applied degree credential to respond to the knowledge and skill requirements of Alberta's changing economy. 2.3 Establish consultation activities to ensure the adult learning system is responsive to the needs of Albertans. 2.4 Establish a policy framework for university research to foster excellence in the creation and sharing of new knowledge. 2.5 Improve information and counseling services about learning opportunities. 2.6 Improve the transfer of courses and the recognition of prior learning. 2.7 Remove barriers to responsiveness in programming. 2.8 Develop an electronic application service for admission to programs.	3.1 Increase the responsibility of public post-secondary students for setting fees and covering the costs of learning to recognize the benefits of opportunities to learn. 3.2 Continuously evaluate student assistance to ensure that financial need is not a barrier to learning opportunities. 3.3 Establish a new funding mechanism to reward performance and productivity in publicly supported post-secondary education. 3.4 Hold institutional boards accountable for revising collective agreements to meet changing economic circumstances. 3.5 Develop centres of program specialization in public post-secondary institutions to ensure quality, cost-effectiveness and efficiency.	4.1 Require providers to measure and report on performance through an accountability framework to advise Albertans of results achieved in publicly funded learning opportunities. 4.2 Ensure that providers of learning opportunities have met appropriate standards of quality to protect the learner.

Table 4.2

Summary of Goals and Strategies in *New Directions for Adult Learning in Alberta* (Alberta Advanced Education and Career Development, 1994b)

the system of higher education in Alberta toward a free market model, and the intentions as outlined in the *Three-year Business Plan* support this interpretation.

Conclusion. Recent change in higher education policy in Alberta must be viewed within the context of change in public governance in the province. Although *New Directions* and its corresponding restructuring initiatives represent an effort by AECD to respond to the changing educational needs of society, they are also part of a broader political agenda to instil "new right" values into the delivery of public sector services in Alberta. Since its rise to power in 1992, the Klein administration has dictated that the principles of accountability, quality, and low cost will guide all departmental planning. *New Directions*, with its explicit emphasis on accountability, quality, and affordability in the future development of the postsecondary system in Alberta, clearly conforms to the provincial edict. Further, the document's implicit thrust to shift the system toward a free market model is consistent with the Klein administration's ideological orientation.

The University of Alberta

Overview

The University of Alberta (U of A) is a publicly supported, non-denominational, co-educational teaching and research institution located in Edmonton, the provincial capital of Alberta. Established in 1908, the U of A is Alberta's largest postsecondary institution and one of Canada's five largest comprehensive universities with a full-time staff of over 5,000 and an annual student enrolment of almost 30,000. Undergraduate programs are offered in 13 faculties and the School of Native Studies, and the Faculty of Graduate Studies and Research provides more than 76 master's and 64 doctoral programs in 190 research areas (University of Alberta, 1997a). Additionally, the Faculty of Extension offers continuing education courses and programs in the areas of business, fine arts, the humanities, the professions, and various sciences to over 19,000 course registrants

annually (University of Alberta, 1997a; 1997b, p. 653). A list of U of A faculties and their corresponding departments is presented in Table 4.3.

The U of A is the largest research institution in Alberta and a major research institution in Canada. Its areas of established research excellence include analytical chemistry; carbohydrate chemistry; catalysis and catalytic reaction engineering; cosmology; English literature; environmental sciences and engineering; fish endocrinology; geotechnical and structural engineering; lipids and lipoproteins; neuroscience; pharmaceutical and medicinal chemistry; printmaking, performance, and piano; protein structure and function; social and managerial aspects of sport and leisure; and western and northern Canada. The U of A participates in all 14 of the Federal Networks of Centres of Excellence which link industry, universities, and government in applied research and development, and is the national scientific and administrative headquarters for two of these: the Protein Engineering Network and the Sustainable Forest Management Network. The U of A is also the headquarters of the Prairie Centre of Excellence for Research on Immigration and Integration, one of four such centres in Canada. In 1996 the university's research funding from external sources totalled \$101.7 million and was responsible for 5,400 jobs in Edmonton and other areas of the province (University of Alberta, 1997a).

Governance and Administration

As required by the Universities Act, the U of A is governed by a board of governors in conjunction with a senate and GFC, and is administered by a president. The University Secretariat, an administrative unit within the president's office, administers GFC and its committees, and provides support for certain committees of the president, such as Deans' Council and Chairs' Council (University of Alberta, 1997c). Also assisting the president are three vice-presidents (VPs)—a VP (Academic), a VP (Finance and Administration), and a VP (Research and External Affairs)—whose administrative responsibilities are outlined in Figure 4.3. The VP (Academic) is the senior vice-president and acting president when the president is

Table 4.3
University of Alberta
Faculties, Departments, and Schools, 1997-98

Agriculture, Forestry & Home Economics:

Agricultural, Food & Nutritional Science
 Human Ecology
 Renewable Resources
 Rural Economy

Arts:

Anthropology
 Art & Design
 Drama
 East Asian Studies
 Economics
 English
 History & Classics
 Linguistics
 Modern Languages & Comparative Studies
 Music
 Philosophy
 Political Science
 Psychology
 Sociology
 Women's Studies

Business:

Accounting & Management Information Systems
 Finance & Management Science
 Marketing, Business Economics & Law
 Organizational Analysis

Education:

Educational Policy Studies
 Educational Psychology
 Elementary Education
 School of Library & Information Studies
 Secondary Education

Engineering:

Chemical & Materials Engineering
 Civil & Environmental Engineering
 Electrical & Computer Engineering
 Mechanical Engineering

Extension

Graduate Studies & Research

Law

Medicine & Oral Health Sciences:

Anaesthesia
 Biochemistry
 Biomedical Engineering
 Cell Biology & Anatomy
 Family Medicine
 Laboratory Medicine & Pathology
 Medical Genetics
 Medical Microbiology & Immunology
 Medicine
 Obstetrics & Gynaecology
 Oncology
 Ophthalmology
 Oral Health Sciences
 Paediatrics
 Pharmacology
 Physiology
 Psychiatry
 Public Health Sciences
 Radiology & Diagnostic Imaging
 Surgery

School of Native Studies

Nursing

Pharmacy & Pharmaceutical Sciences

Physical Education & Recreation

Rehabilitation Medicine:

Occupational Therapy
 Physical Therapy
 Speech Pathology & Audiology

Faculté Saint-Jean

Science:

Biological Sciences
 Chemistry
 Computing Science
 Earth & Atmospheric Sciences
 Mathematical Sciences
 Physics
 Psychology

Note: From University of Alberta (1997b).

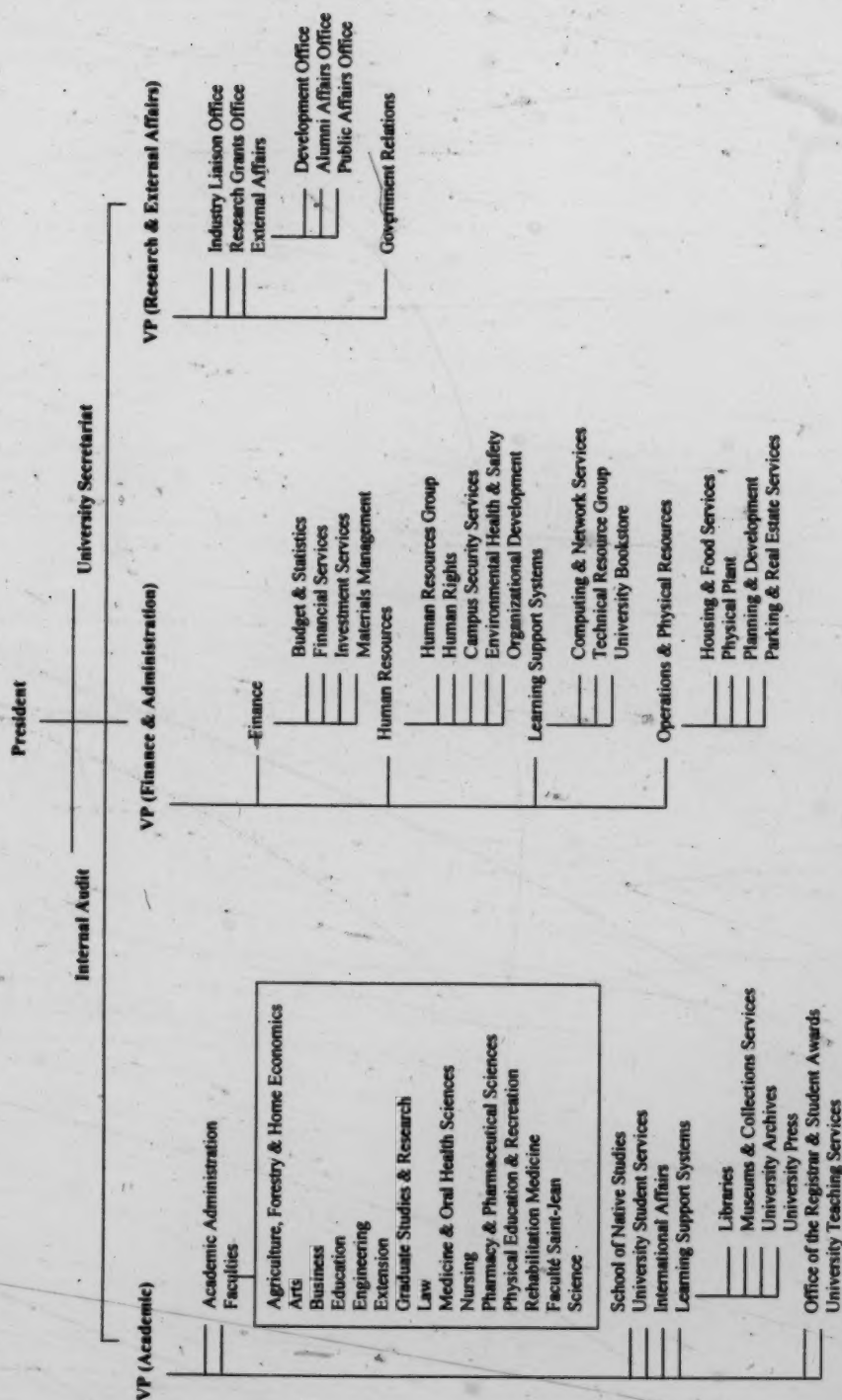


Figure 4.3. Senior Administration at the University of Alberta, 1997-98.
 From University of Alberta (1997).

absent or incapacitated. There are 15 deans at the U of A, one for each of the faculties listed in Table 4.3, and directors for the Schools of Native Studies and Library and Information Studies. Seven of the 15 faculties are departmentalized and there are currently 61 departments (see Table 4.3).

The departmental structure of governance is prescribed by GFC with board approval (University of Alberta, 1996b, Section 42). Each department has a department chair who is the chief executive officer of the department entrusted with the general supervision over and direction of the activities of the department subject to, in order of priority, university, faculty, and department policies. The department chair is responsible to the dean for the satisfactory performance of the work of the department. Each department also has a department council consisting of the department chair who acts as chairman, the dean of the faculty, all continuing academic staff members of the department, student representatives, and other persons recommended by the department council. Subject to the authority of the appropriate faculty council, a department council determines policy on internal department matters consistent with faculty and university policy, providing that the policy does not contravene the duties and responsibilities of the department chair. The board of governors of the U of A has established a council of department chairs to act as an advisory body to the president, board, GFC, and deans' council. The council of department chairs consists of the president, all department chairs, and any other officers of the university designated by the council. The structure of governance at the U of A is depicted in Figure 4.4.

Recent History

The history of retrenchment at the U of A did not begin in 1994 with AECD's announcement that institutional operating grants would be reduced by nearly 20% over the next three years. As shown in Table 4.4, as early as 1983, then president, Myer Horowitz began imposing across-the-board budget cuts in response to "increased budget pressures" (University of Alberta, 1986, p. 6) created by the failure

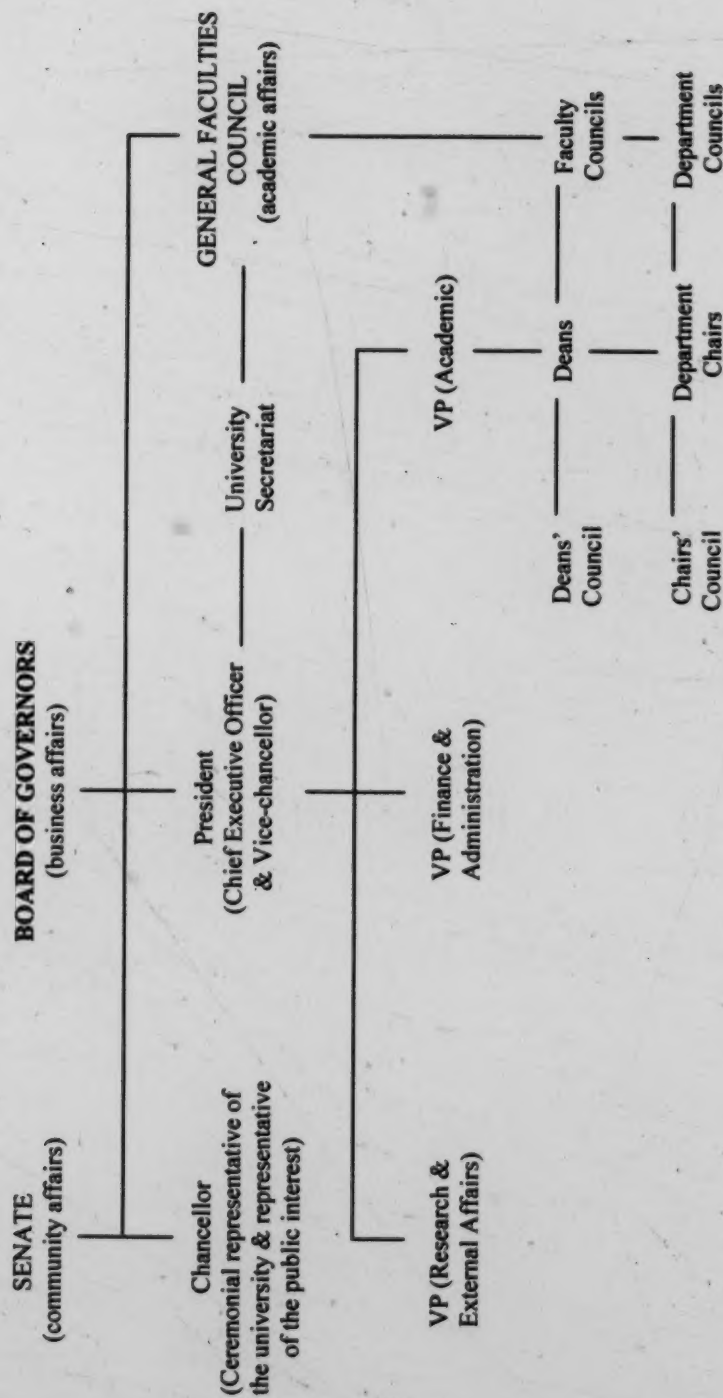


Figure 4.4. Structure of Governance at the University of Alberta.

Conceptualized from information provided in the *Universities Act* (Province of Alberta, 1994); *Data Book 1995-96* (University of Alberta, 1996a); and *General Faculties Council Policy Manual* (University of Alberta, 1996b).

of provincial funding to keep pace with inflation, enrolment growth, and salary, benefits, and merit scale increases (University of Alberta, 1983). By 1991, the budget pressures had escalated into "serious financial difficulties" (University of Alberta, 1991a, p. 1), prompting the new president, Paul Davenport, to propose major structural changes in addition to uniform cuts (see Table 4.4), and to create a Strategic Planning Task Force "to consider the development of the University of Alberta for the next ten years, with particular reference to the evolution of funding and enrollment, support for teaching and research, and the management of University finances and assets" (University of Alberta, 1993, p. 29). The following sub-sections discuss the results of the 1991 restructuring proposal and the outcome of the strategic planning initiative.

Table 4.4
University of Alberta Annual Average* Base Budget Reductions, 1983-93

Budget Year	Academic Units	Support Units
1983-84	1.80%	3.00%
1984-85	3.00%	4.00%
1985-86	3.00%	3.50%
1986-87	2.50%	3.50%
1987-88	1.90%	1.90%
1988-89	0.65%	0.65%
1989-90	0.50%	0.50%
1990-91	2.00%	2.00%
1991-92	2.00%	2.25%
1992-93	2.00%	2.25%
1993-94	nil**	nil**

Note: From University of Alberta (1984; 1986-89; 1990-93; 1992a).

*VPs could apply the cuts differentially among their respective units as long as the required average reduction was generated. Academic and support units bearing the brunt of enrolment growth (Arts, Science, and Library) received special treatment.

**No overall base budget reductions were applied in 1993-94 due to some of the 1991 restructuring recommendations taking effect that year, a higher than predicted revenue base, and lower than predicted expenditures in the previous year.

"The St. Valentine's Day Massacre." The 1991 proposals for restructuring at the U of A were contained in a document entitled *Maintaining Excellence and*

Accessibility in an Environment of Budgetary Restraint (University of Alberta, 1991a; hereinafter referred to as *Maintaining Excellence*) that was prepared by President Davenport and his five VPs, and released on February 14th, 1991. The document was subsequently rechristened the "St. Valentine's Day Massacre" by university staff due to the comprehensiveness of the proposed restructuring and because it had been prepared without the direct input of GFC, Deans' Council, Chairs' Council, or other university constituents (see University of Alberta, 1991b; Haughey, 1994).

The basic premise of *Maintaining Excellence* was that across-the-board budget cuts affected the quality of teaching and research at the university, supported program duplication and redundancy, and maintained low demand units at the expense of high demand ones. Consequently, a more selective approach to university budgeting was required if excellence and accessibility were to be maintained. As shown in Table 4.5, *Maintaining Excellence* recommended a series of structural changes grouped into three sections—removal and transfer of existing vacancies; budget reductions to specific units and review of an ancillary department; and closure or reorganization of academic units, termination of academic programs, and reductions in quotas—and identified other areas for potential structural change to be considered by a subcommittee of the GFC Planning and Priorities Committee chaired by the VP (Academic).

Restructuring began in the 1991-92 academic year following the modification and approval of the majority of the recommendations by the appropriate governing bodies in May, June, and July of 1991. (Recommendation 3.5 was withdrawn after discussions at GFC's senior committees failed to indicate the necessary support; Recommendation 3.2 was modified to maintain the Department of Applied Sciences in Medicine but with a major operating budget reduction; and Recommendation 3.8 was modified to place the new School of Library & Information Studies administratively within the Faculty of Education [University of Alberta, 1991b, p. 4].) However, approval was not obtained without significant criticism by GFC.

Table 4.5**Summary of Maintaining Excellence and Accessibility in an Environment of Budgetary Restraint (University of Alberta, 1991a)**

RECOMMENDED STRUCTURAL CHANGES
Removal and Transfer of Existing Vacancies 1.1 That 17 vacancies be removed from nine faculties (Agriculture & Forestry, Business, Dentistry, Education, Engineering, Extension, Home Economics, Medicine, Recreation & Leisure Studies, Special Initiatives [Genetics]) and transferred to three other faculties (Arts, Pharmacy & Pharmaceutical Sciences, and Science) on July 1, 1991.
Budget Reductions to Specific Units and Review of an Ancillary Department 2.1 That the net expenditure budget for the non-credit courses and programs of the Faculty of Extension be reduced in 1991-92 dollars from \$2.15 million in 1991-92 to \$0.9 million by 1995-96. 2.2 That the Department of Oral Biology be reduced to six academic staff members from its current level of ten and the remaining budget be decreased by 50% effective June 30, 1991. 2.3 That the University Computing Systems (UCS) salary and benefits budget be reduced by \$1 million over five years, and the funds be redirected on a permanent basis to a UCS budget line for capital equipment purchases. This budget transfer is in addition to the reduction required by any general budget reduction. 2.4 Complete a review of Printing Services by July 1991 with consideration given to complete closure of the operation, transfer of services to other units on campus, tendering out or privatization.
Closure or Reorganization of Academic Units, Termination of Academic Programs, and Quota Reductions 3.1 That the Department of Agricultural Engineering be closed on June 30, 1991 with no further admission into the degree programs after 1990-91. 3.2 That the Department of Applied Sciences in Medicine be closed as of June 30, 1991. 3.3 That the Faculty of Dentistry DDS annual quota be reduced from 50 to 30 beginning in 1991-92. 3.4 (a) That the Department of Recreation and Leisure Studies be closed as of June 30, 1991 and that a Division of Recreation and Leisure Studies be created within the Department of Physical Education and Sport Studies; and (b) that five FTE faculty and one nonacademic FTE be retained within the receiving Department to support a degree program reduced to a quota of 20 students in each of years 2, 3, and 4, and with up to 10 additional transfer students admitted from other postsecondary institutions in each of years 2 and 3. 3.5 That the Mining Engineering Program be closed with no further admission of students into the program after 1990-91. 3.6 (a) That the Vocational Education and Industrial Arts Education (High School Specialization) programs be merged into a single degree program and that the four faculty associated with these programs be transferred to the Department of Secondary Education; and (b) that the quota in this merged are be significantly reduced with one faculty position retained to teach the basic Vocational/Industrial Art courses. 3.7 (a) That the Faculty status of Student Counselling Services be abolished June 30, 1991 and that tenured staff in Student Counselling Services be considered for appointments by VP (Academic) in academic departments as of July 1, 1991, and that subsequent secondments be arranged to Student Services to maintain the counselling function for the University; and (b) that the student counselling function be maintained from July 1, 1991 under Student Services. 3.8 (a) That the Faculty of Library and Information Studies be restructured as a School as of June 30, 1991 or 1992; and (b) that the School of Library and Information Studies be placed administratively within the Faculty of Arts or another Faculty, and that the terms and conditions established by GFC allow for autonomy with respect to budget and curriculum planning for the degree planning.

OTHER AREAS FOR POTENTIAL STRUCTURAL CHANGES

- 4.1 To consider the creation of a Faculty of Health Sciences to be made up of all or some of the Faculties of Dentistry, Nursing, Pharmacy & Pharmaceutical Sciences, Rehabilitation Medicine, Physical Education & Recreation, and Home Economics.
- 4.2 To consider merging several functions or units within the Faculty of Extension with related academic departments; or to consider the merging the Faculty of Extension as a new unit into the Faculty of Education.
- 4.3 To consider merging the Faculty of Home Economics into the Faculty of Physical Education & Recreation or the Faculty of Agriculture & Forestry or the proposed Faculty of Health Sciences.
- 4.4 To consider merging the Departments of Health Services Administration and Education Administration with the Faculty of Business.
- 4.5 To consider transferring the modified recreation administration program from Physical Education to Business.
- 4.6 To consider placing the School of Library and Information Studies administratively within the Faculty of Business.
- 4.7 To consider greater cooperation between the Department of Rural Economy and the Faculty of Business.
- 4.8 To consider placing the School of Native Studies administratively within the Faculty of Arts.
- 4.9 To consider the Department of Secondary Education undertaking program modifications involving specializations in Vocational/Industrial Arts Education, Business Education, and Home Economics Education so that future teacher education provisions are compatible with emergent Alberta Department of Education developments in Career Education.
- 4.10 To consider greater cooperation among the Faculties of Science, Medicine, and Agriculture & Forestry which might lead to the merging and restructuring of duplicated units.
- 4.11 To consider combining the program in Petroleum Engineering with the Department of Chemical Engineering.
- 4.12 To consider combining the program in Metallurgical Engineering with the Department of Mechanical Engineering.
- 4.13 To consider reducing restrictions on the number of courses offered by professional Faculties which students in the Arts and Science may take as approved options in their programs.
- 4.14 To consider reviewing policies on service courses so that course redundancies are minimized and interdisciplinary cooperation enhanced.

Specifically, GFC was critical of the fact that the restructuring proposals lacked the overall framework of a long-term strategic plan and had been formulated unconventionally without the direct input of the various campus constituents (University of Alberta, 1991b, pp. 4-7). As a result, a Strategic Planning Task Force consisting of representatives of the Board, the Senate, the administration, GFC, Deans' Council, and students was established in May 1991 to consider and report on the development of the university for the next ten years (University of Alberta, 1996b, Section 107).

The strategic plan. Following the identification of key issues facing the university (University of Alberta, 1992) and meetings with individuals and groups from the university and larger community in 1992, the release of a draft report

(University of Alberta, 1993a) in April 1993 and consideration of the written responses it engendered, the Strategic Planning Task Force produced a final document in November 1993 called *Degrees of Freedom: A Strategic Plan for the University of Alberta to the Year 2005* (University of Alberta, 1993b; hereinafter referred to as *Degrees of Freedom*).

Degrees of Freedom was a comprehensive document containing a new statement of mission for the university, a set of principles to adhere to in support of the mission, a vision for the university in the year 2005, along with 21 strategies and 46 recommendations designed to achieve the vision (see Appendix F). The document was predicated on the supposition that while enrolment would continue to expand over the next 10 years, direct public support by way of operating grants would not (p. 19). As a result, the university would have to increase support from other sources, as well as adopt "a selective approach to the allocation of resources and the setting of priorities at all levels of the institution" (p. 3).

Accordingly, the new mission statement was explicit that the dissemination of knowledge through teaching and the discovery of knowledge through research would be carried out in only a select number of fields and professions. The strategic initiatives and their corresponding recommendations indicated that programs and courses of inferior quality or for which there was insufficient student demand were to be eliminated (Recommendations 10 and 13), and resources were to be concentrated on programs of superior quality and faculties and disciplines with established or emerging records of excellence in teaching and research (Recommendations 13, 16, 17, 28, 34, and 41). Tenure, salary, and promotion of academic staff were to be linked to well-demonstrated teaching quality and superior scholarly research (Recommendation 27), and faculties that were truly rewarding excellence in academic performance would, in turn, be rewarded through budgetary allocations or differential distribution of the increment pool (Recommendation 28). Finally, areas of cross-functionality or duplication in academic and support services were to be reduced through reorganization and the development of interdepartmental, interdisciplinary,

collaborative efforts in both teaching and research (Recommendations 6, 15, 18, and 37).

More restructuring. Immediately after *Degrees of Freedom* endorsed selectivity as a long-term guiding principle in resource allocation at the U of A, the President's Executive Committee began preparing a second round of restructuring proposals. These proposals were put forward in a document entitled *Quality First* (University of Alberta, 1994a) which was released in February 1994, coinciding with the release of AECD's initial three-year business plan. As shown in Table 4.6, *Quality First* contained 15 recommendations for restructuring and identified other areas for potential restructuring that were a direct corollary to the recommendations in *Degrees of Freedom* discussed above. The document targeted specific academic programs and units for either termination, downsizing, or reorganization; recommended that continuing faculty no longer receive additional payment for teaching Special Sessions courses; advised the termination or reorganization of particular support units; and identified other areas for potential structural changes.

The impact of *Quality First* was immense. After consideration, modification, and approval of the proposals made in the document, almost no area of the university remained untouched. The majority of the recommendations were approved "as is," and restructuring resulting from those recommendations began in April 1994. (Recommendation 1 was defeated by GFC's Academic Development Committee, but subsequently considered and approved by both the Planning and Priorities Committee and GFC. It was then tabled by the Board of Governors at its June 24, 1994 meeting in favour of restructuring the Faculty of Dentistry to continue with an equivalent cash saving to the university as was proposed by its closing. Recommendation 2.1 was defeated by GFC and Recommendation 2.4 was deferred by GFC at the request of the VP (Academic) [University of Alberta, 1994b].) The defeated and deferred recommendations ultimately led to alternative forms of restructuring. (In July 1994, the Faculty of Education eliminated two academic departments and one support unit via mergers. In June 1995, GFC endorsed a proposal from the Faculty of Education

Table 4.6

Summary of Structural Changes Proposed in *Quality First* (University of Alberta, 1994a)

RECOMMENDED STRUCTURAL CHANGES

Termination, Significant Down-sizing, or Reorganization of Academic Units

1. That the Faculty of Dentistry be closed after the year 1997-98, with no new admissions after 1994-95. The University will work with the Government of Alberta to develop the means to provide trained dentists and dental hygienists for Alberta, through agreements with other provinces (or in the case of Dental Hygiene other Alberta institutions), by funding Alberta students who are trained outside Alberta but agree to practice in Alberta, or by some other method.
- 2.1 That beginning in the 1995-96 academic year the Bachelor of Education program be changed to a two-year program with entry after two years in an Arts or Science program at the University or in a college.
- 2.2 That beginning in the 1996-97 academic year the Faculty of Education encourage B.A. and B.Sc. graduates who wish to earn a B.Ed. by offering a concentrated program which can be completed in one calendar year.
- 2.3 That the Faculty of Education, in consultation with the Faculty of Graduate Studies and Research, be more selective in its graduate program offerings so that the best programs can continue to be supported.
- 2.4 That the operating budget for the Faculty of Education be reduced by \$5 million over a period of three years beginning in 1994-95 with priority given to the B.Ed. program and retention of the strongest graduate programs.
3. That effective April 1, 1995 the Departments of Germanic Languages, East Asian Studies, Slavic & East European Studies, and Romance Languages be merged into a single Department of Modern Languages.
4. That effective April 1, 1995 a department which focuses on comparative cultural studies be formed by the merger of the Department of Religious Studies with Comparative Literature & Film Studies.
5. That effective July 1, 1994 the Departments of Botany, Entomology, Genetics, Microbiology, and Zoology be merged into a single Department of Biological Sciences within the Faculty of Science.
6. That effective July 1, 1994 the Department of Statistics & Applied Probability be merged with the Department of Mathematics.
7. That the Faculty of Medicine develop a plan by September 1, 1994, for restructuring administrative units in the Faculty, in order to build on the Faculty's strengths, encourage interdisciplinary research and teaching, and save on administrative costs. The savings to the operating budget of the restructuring should be \$200,000, which is in addition to reductions which may be required by the annual budget decisions of the Vice-President (Academic).
8. That effective September 1995 professional graduate programs in administrative studies in the Faculties of Education, Physical Education & Recreation, and Medicine be modified in cooperation with the Faculty of Business to create joint master's degree programs which include a common core curriculum similar to the first year of the MBA program, and that the Master's degree program in Health Services Administration be relocated to the Faculty of Business with the requisite movement of resources and personnel from Medicine to Business, and with provision for mechanisms which adequately link the two Faculties for this program.
9. That effective April 1, 1994 the Department of Athletics cease to exist as an academic department and become a cost-recovery unit with its own budget within the Faculty of Physical Education & Recreation.
10. That the Faculties of Nursing, Pharmacy & Pharmaceutical Sciences, Rehabilitation Medicine, and Physical Education & Recreation develop a plan for better coordination between the Faculties and Departments involved in aspects of health promotion and wellness studies. The plan is to be submitted to the Vice-President (Academic) by September 1, 1994, and is to include a strategy for achieving:
 - better interaction in teaching
 - more effective interdisciplinary research
 - elimination of redundancies in teaching programs

- encouragement of team building in the health care delivery system
- increased emphasis on health promotion and disease prevention
- a reduction in the number of administrative and administrative support positions
- a \$200,000 reduction in operating costs as a result of the saving realized from the combined effects of the above actions; the \$200,000 will be in addition to the budget reductions assigned by the Vice-President (Academic) to the several Faculties in their 1994-95 and future budgets.

Payment for Teaching in Special Sessions

11. That continuing faculty no longer receive additional payment for teaching Special Sessions courses and that the amount saved in this way be made available to departments offering the Special Sessions courses. Instead, credit for this teaching will be taken into account along with that for regular session teaching in the Faculty Evaluations. The Vice-President (Academic) will monitor the change and will take the necessary steps to ensure that the number of courses offered in Special Sessions continues to grow in keeping with demand and that access to regular session courses is not decreased as a result.

Termination or Reorganization of Support Units

12. That effective July 1, 1994 the Special Sessions unit, including its registrarial functions, be moved from the Faculty of Extension to the Office of the Registrar; and that the registrarial functions in the Faculty of Graduate Studies and Research, with the corresponding budget for those functions, be moved to the Office of the Registrar.
13. That the Departments of Personnel Services & Staff Relations, Pension & Benefits Administration, and the Payroll Section of the Comptroller's Office are to be integrated into a single unit by September 1, 1994.
14. That the position of Associate Vice-President (Facilities) be eliminated effective July 1, 1994 and the organizational and operational framework governing the administration of the University's physical assets be fully reconsidered.
15. That a comprehensive examination of alternative ways of meeting our energy needs commence immediately. This examination should seek to minimize the utilities costs incurred by the University.

OTHER AREAS FOR POTENTIAL STRUCTURAL CHANGES

1. To consider reductions in the number of Departments in the Faculty of Agriculture, Forestry & Home Economics, the Faculty of Business, and the Faculty of Physical Education & Recreation, with particular consideration given to moving the Faculties of Business and Physical Education & Recreation to a non-departmentalized structure.
2. To consider restructuring the Faculty of Extension to become a "service unit" with the primary or sole purpose of facilitating extension and alternate delivery activity by degree-granting Faculties. All non-credit activity by Extension or by other Faculties would be on a full cost-recovery basis.
3. Making selective choices at the provincial level in order to reduce program and course duplication, and to improve course transferability and program coordination.

to move to a 1+3 model for the Bachelor of Education program in 1997-98. In April 1996, the Faculty of Dentistry merged with the Faculty of Medicine to form the Faculty of Medicine & Oral Health Sciences.) Additionally, several of the areas

identified for potential structural changes were subsequently approved and implemented. (In September 1994, three academic departments in the Faculty of Agriculture, Forestry & Home Economics were eliminated via mergers. In January 1995, the Faculty of Physical Education & Recreation moved to a non-departmentalized structure.) A summary of restructuring at the U of A between 1991 and 1997 is contained in Appendix G.

Conclusion. The U of A had been in a state of retrenchment for more than a decade prior to AECD's 1994 announcement that it intended to retrench and restructure the postsecondary education system in Alberta. Since 1983 the university had been applying across-the-board budget cuts to both academic and support units, and in 1991 began supplementing this retrenchment strategy with selective cuts involving the termination, reduction, and reorganization of specific programs and units. By the time AECD announced its retrenchment and restructuring plans in 1994, operations at the U of A had already been significantly streamlined. At the beginning of the 1994-95 academic year, the university's operating budget was in balance and a modest operating reserve had been accumulated (University of Alberta, 1994c, p. 3); low demand, high cost, or duplicated programs and units had been either closed, downsized or reorganized (Appendix G); one vice-presidency had been eliminated (Appendix G); two faculties had been closed with discussions underway to close a third (Appendix G); plans were in place to reduce the number of academic departments from 86 to 61 (Appendix G); and the number of support staff had been decreased by almost 23% since 1990 (University of Alberta, 1995, p. 1.004). Consequently, AECD's decision to reduce institutional operating grants by nearly 20% between 1994 and 1997 boded difficult times ahead for the U of A. As President Davenport concluded:

The three-year government grant reductions announced in January, 1994, will test our resolve and our creativity in pursuing the goals in *Degrees of Freedom*. The cuts will severely restrict recruitment of new faculty, the

lifeblood of any university, and they will make our commitment to increasing student access to high quality programs very difficult to achieve. (University of Alberta, 1994a, p. ii)

Summary

The Alberta system of higher education is a comprehensive system of both public and private institutions forming six primary sectors. The university sector is the largest, accounting for more than 50% of the annual total postsecondary FTE enrolment in the province. Responsibility for the provision and operation of the system lies with the provincial government acting through the Ministry of Advanced Education and Career Development (AECD). AECD plans, coordinates and controls the system, and provides the majority of government funding to public institutions. All public institutions are governed by legally incorporated boards under the authority of sectorial legislative acts. Board governance is largely autonomous, with certain decisions being subject to the approval of either the Minister or the Lieutenant Governor in Council.

Under the Universities Act, boards of universities are responsible for the property, revenue, business and affairs of their respective institutions. Responsibility for academic affairs is assigned to a general faculties council (GFC) which is a separate governing body subject to the authority of the board. Each university also has a legally incorporated senate responsible for representing the public interest in the university, electing a chancellor every four years, and authorizing the conferring of honorary degrees. The Universities Act also prescribes the basic macro-administrative structure of each university. Each university has a president who acts as chief executive officer and vice-chancellor of the university, one or more vice-presidents, a registrar, a dean and faculty council for each faculty, and a deans' council.

In 1994, AECD introduced major changes to the funding and administration of higher education in Alberta with the release of its first *Three-year Business Plan* (1994a) and a new policy framework entitled *New Directions for Adult Learning in*

Alberta (1994b). Through these two documents, AECD indicated that it intended to reduce institutional operating grants by 11%, 7%, and 3% respectively for the next three years, and to restructure the administration of the postsecondary system to achieve greater accessibility, responsiveness, affordability, and accountability. Although the changes in higher education policy were instigated by AECD's desire to respond to the changing educational needs of Albertans, they were heavily influenced by a wider movement by the provincial government to infuse public sector services with new right values, and many of the changes planned for higher education reflected a free market orientation.

The University of Alberta (U of A) is a publicly supported teaching and research institution offering undergraduate programs in 13 faculties and the School of Native Studies, and master's and doctoral programs in 190 research areas. With an annual student enrolment of 30,000, the U of A is Alberta's largest postsecondary education institution, accounting for approximately 50% of the province's university sector FTE enrolment and 25% of the province's total postsecondary FTE enrolment. As prescribed by the Universities Act, the U of A is governed by a board, GFC, and senate, and is administered by a president assisted by three vice-presidents. The university has 15 faculties, each of which is overseen by a dean. Seven of the faculties are divided into 61 departments, each of which is supervised and directed by a department chair who is responsible to the dean for the satisfactory work of the department.

Retrenchment at the U of A did not begin in 1994 with AECD's announcement that it intended to reduce institutional operating grants by 20% within three years. Budgetary problems were acknowledged by the university's central administration more than a decade earlier in 1983, and had been responded to over the years with a two-pronged strategy of uniform and selective budget cuts. The principle of selectivity was endorsed in the university's strategic plan and the selective cuts were achieved through two primary restructuring initiatives called *Maintaining Excellence* (1991a) and *Quality First* (1994a), which targeted specific programs and

units for either reorganization, reduction, or termination. By the time AECD announced its retrenchment and restructuring plans in 1994, operations at the U of A had already been significantly downsized.

CHAPTER 5

CHANGES IN THE FUNDING OF PUBLIC INSTITUTIONS OF HIGHER EDUCATION IN ALBERTA SINCE 1994

This chapter presents the findings in relation to Specific Research Question 1: *What specific changes in policy have occurred in the funding of public institutions of higher education in Alberta since 1994?* The chapter begins with a section that describes the funding and related policy changes introduced by Advanced Education and Career Development (AECD) in 1994, explaining how they differed from previous arrangements and evolved to the end of the 1997 calendar year. To conclude the chapter, the changes in policy are summarized and discussed in thematic form.

Changes in Funding and Related Policies

As noted in the preceding chapter, 1994 was a pivotal year for higher education in Alberta with AECD's announcement that the postsecondary system would be restructured to achieve greater accessibility, responsiveness, affordability, and accountability. General strategies to achieve the four goals were set out in *New Directions for Adult Learning in Alberta* (1994b), AECD's policy framework for future system development, and specific actions to support the strategies were contained in the department's *Three-year Business Plan* (1994a). The provision of funding to public institutions was of particular significance in the restructuring plans, not only because institutional operating grants were slated for a three-year cumulative reduction of approximately 20%, but because a new funding mechanism and several related policies were to be implemented to induce the desired systemic changes.

Under the new mechanism, the allocation of funds to support public institutions consisted of two main components:

1. A general operations grant to fund program delivery, administration, and capital requirements within each institution's mandate, with the grant tied to targets identified in the department's business plan and institutional performance.

2. Performance-driven "envelopes" of funds to assist and act as incentives for the system to make changes in support of specific objectives, and reward institutional performance in meeting the restructuring goals.

The following two sub-sections present the specifics of each component and any related policies, explaining how they differed from previous arrangements, were linked to the restructuring goals, and evolved since their introduction in 1994.

Grants and Related Policies

Operating and capital grants. Until 1994, provincial funding of public institutions consisted predominantly of "block grant" funding divided into two main categories, operating and capital, which were allocated separately to institutions. Also known as "core" funding, block grants were largely unconditional funds provided annually to institutions to fund program delivery, administration, and capital requirements. Prior to 1973, operating grants were distributed through the use of an enrolment unit formula which allocated a specific amount of funding for each full-time student. That method was replaced in 1973-74 by a three-year operating grants plan based on projected enrolment for the 1973-76 period. In 1976-77, operating grants became indexed to inflation, with each institution's previous year's regular operating grant acting as the base. Additionally, the base grant could be adjusted in three other ways: for new programs, for the operating costs of new space, and for special circumstances. New program grants, initially conditional, were tracked until the program was in full operation then funding was folded into the operating base. Grants for new space were added to the base to cover the operating costs of a newly acquired facility in the year it came on stream. Special circumstance grants were provided periodically to address conditions such as extraordinary enrolment or special projects. Since 1982-83, base grants were also supplemented by enrolment growth funding which provided an incremental amount of funding for each FTE student over 1981-82 enrolment levels until 1991-92, when it was capped (Alberta Advanced Education and Career Development, 1995b, p. 3).

In the 1970s, capital grants were provided for major capital projects, and the replacement of furnishings and equipment, renovations, and site and utility maintenance were funded in conjunction with these projects and/or through general operating funds. As additions to capital inventories declined, funding programs were reintroduced over time to ensure that resources were available to replace and renew fixed assets. By 1981-82, these programs had solidified into "capital formula funding" comprising three categories—furnishings and equipment, renovations and alterations, and site and utility maintenance—which was provided annually to institutions. The calculation of capital formula funding was based on facilities area, the replacement value of each institution's assets, and useful lifetimes in various asset categories. In 1990-91, the formula was discontinued and each institution's capital allocation continued at the 1986-87 level. Institutions could spend these grants among the three asset categories. Additionally, separate grants were provided periodically to fund new capital construction or special projects (Advanced Education and Career Development, 1995b, pp. 3-4).

Under the new funding mechanism implemented in 1994, grants for new capital construction were suspended for three years, and capital renewal grants and enrolment growth supplements were rolled into operating grants based on 1993-94 levels. This combined grant was then slated for reductions of 11% in 1994-95, 7% in 1995-96, and 3% in 1996-97—a cumulative reduction of 19.7%—with no further reductions (or expansion) planned beyond that time (Alberta Advanced Education and Career Development, 1994a, pp. 8-9; 1997g, p. 15). In dollar terms, the percentage reductions translated into \$90 million the first year, an additional \$57 million the second year, and a further \$39 million the third year, leading to a reduction in operating grants of \$186 million by 1996-97, which then was to become the static, new base year (Alberta Advanced Education and Career Development, 1994c). In other words, operating grants were capped at 1996-97 levels, and in subsequent years institutions would continue to receive 19.7% or \$186 million less *per annum* in operating grants than they had received in the 1993-94 fiscal year.

Having been provided with this multi-year budgetary information, institutions were required by AECD to absorb the reductions without incurring a deficit, and to prepare and submit annual three-year business plans outlining their courses of action. (Alberta Advanced Education and Career Development, 1994c; 1996h). Institutions were also "encouraged" by AECD to absorb a portion of the cuts through a 5% reduction in employee salaries, which the Minister referred to as the "5% wage rollback initiative" (Alberta Advanced Education and Career Development, 1994a, p. 8; 1994d). To facilitate this initiative and to increase the ability of institutional boards to adjust their academic staffing for reasons of fiscal stringency and redundancy, AECD ordered all boards to reexamine and, if necessary, renegotiate their collective agreements by March 1, 1995 (Alberta Advanced Education and Career Development, 1994b, p. 11).

These policy changes fell under the aegis of the goal of increasing affordability in the *Three-year Business Plan* (1994a), and their stated intent was to "increase productivity of the postsecondary system" (p. 8). According to AECD, increased productivity meant that "more can be done with the same or less amount of money or effort" (Alberta Advanced Education and Career Development, 1996f, p. 4). Productivity was expected to increase in three ways. First, by eliminating new construction in the system, year-round use of existing facilities was encouraged. Second, by combining the operating and capital renewal grants, boards were given more flexibility to allocate between operating and capital, and therefore could respond more effectively to institutional needs and priorities. Third, with reduced funding targets, the system was expected to become more efficient and effective through three-year planning, the sharing of support and administrative resources, and program rationalization. Program rationalization was also linked to the goal of improved responsiveness as it was expected to lead to the development of program and delivery structures more reflective of the needs of individuals, the labour market, and communities (Alberta Advanced Education and Career Development, 1994a, pp. 4, 8-9).

Enrolment corridor policy. To ensure that levels of accessibility and numbers of student places at each institution were maintained despite the grant reductions, the *Three-year Business Plan* (1994a) introduced an enrolment corridor policy that would reduce an institution's grant even further if student enrolment at the institution fell below an established "corridor" of 2% of 1993-94 levels for the six major institutions in Edmonton and Calgary which included the University of Alberta, Grant MacEwan Community College, the Northern Alberta Institute of Technology, the University of Calgary, Mount Royal College, and the Southern Alberta Institute of Technology, and 5% of 1993-94 levels for all other institutions in the province. The enrolment corridor penalty was originally set at \$2,500 per FTE enrolment below the corridor for an institution, but was revised in 1995 to \$1,500 per FTE below the established level (Alberta Advanced Education and Career Development, 1994a, p. 9; 1994d; 1995b, p. 3; 1995c).

Under this policy, which took effect in 1994-95 for institutions with a 2% corridor and in 1996-97 for institutions with a 5% corridor, when an institution experienced an enrolment decrease below the applicable corridor in a given fiscal year, its operating grant would be adjusted to hold back the appropriate amount of funding in the subsequent year. Institutions were given the opportunity to recover all or part of the lost revenue during the penalized fiscal year. If an institution's enrolment recovered to at least the bottom of the corridor throughout the year, the institution would regain all of the revenue held back. If it recovered some of the enrolment decrease, but not at least to the bottom of the corridor, it would regain the revenue associated with the enrolment increase, but would permanently lose the remainder in the subsequent fiscal year (Alberta Advanced Education and Career Development, 1995c).

Tuition fee policy. To compensate for the three-year reductions in the general operating grants and to reflect the view that "students will pay for a greater share of their learning in line with the benefits they receive" (Alberta Advanced Education and Career Development, 1994e, p. 1), AECD revised its existing tuition fee policy to

allow institutions to raise their fees for instruction gradually from 20% to 30% of annual net operating expenditures by the year 2000, and decreed that foreign students would pay double the fees paid by Canadian students in the same program of studies as a minimum requirement (Alberta Advanced Education and Career Development, 1994f). Under this policy, fees for instruction referred to tuition fees as well as universal flat rate fees, such as library and computer fees, general laboratory fees, and material fees. Student union association fees, health fees, athletic fees, registration fees, and course-specific lab and materials fees were not included (Alberta Advanced Education and Career Development, 1994f).

Prior to the revised policy, which took effect in the 1995-96 academic year, AECD had assumed responsibility for setting the average annual increases in fees for instruction. Under the revised policy, the boards of governors of each institution were given authority for determining annual fee increases within the 30% limit and without prior ministerial approval. Boards were also given the flexibility to vary fees according to variables such as cost of delivery, future student earnings, program demand, and site of the program. As a result, fees for programs such as medicine, law, university transfer, or evening credit courses and programs could be higher than for other programs. Additionally, boards were required to establish a consulting mechanism with students to develop a three-year plan on all annual fees, and these fees were to be published in their institutional calendars (Alberta Advanced Education and Career Development, 1994f).

Envelope Funding

Envelope funding was an entirely new method of funding introduced in 1994. Defined by AECD as "funding for circumstances that are separately identified," envelope funding was described as "a proactive method that uses funding to guide institutions in directions that meet specific government objectives and needs of adult learners" (Alberta Advanced Education and Career Development, 1995b, p. 8). When introduced in 1994, envelope funding consisted of only one envelope, the Access Fund, but was expanded in subsequent years to include five additional envelopes: the

Performance Envelope, the Research Excellence Envelope, the Learning Enhancement Envelope, the Infrastructure Renewal Envelope, and the Intellectual Infrastructure Partnership Program. Funding from several of the envelopes was available to private as well as public institutions, with allocation contingent upon various measures of institutional performance. In the following six sub-sections, the goals, size, institutional eligibility, and method of allocation of each funding envelope are described.

The Access Fund. The Access Fund was established in 1994 to finance "responsive, innovative, and cost-effective methods of increasing adult learner access to training and education programs" (Alberta Advanced Education and Career Development, 1996b). When the fund was announced in June 1994, the primary goals for the fund were as follows: (a) to enrol more adult Albertans in basic education and skills training, career and technical programs, and degree programs, with the view to increasing total enrolments by 10,000 FTE student places; (b) to expand or create programs to enable more Albertans to acquire the attitudes, skills, and knowledge required for employability and personal growth; and (c) to improve the productivity and performance of the postsecondary system by supporting quality program proposals that demonstrate effective and efficient use of public funds. As the fund was implemented, some secondary goals emerged including encouraging greater institutional collaboration and transferability throughout the system (Alberta Advanced Education and Career Development, 1996c, p. 1).

When introduced in 1994, the Access Fund was to be a \$47 million annual fund, financed out of the savings derived from the reductions in institutional operating grants (Alberta Advanced Education and Career Development, 1994a, p. 6). Funding from the envelope was to be dispersed on a program-by-program basis following three cycles of approval, with future funding contingent upon satisfactory performance and evaluation. In 1994, an Access Fund Advisory Committee, composed of members representing business, student bodies, and government, was formed to review submissions from universities, public colleges, technical institutes, private accredited

colleges, and eligible licensed private vocational schools, and make recommendations to the Minister. Each submission was reviewed against the criteria of program quality, innovative delivery, accountability for results, formation of partnerships with employers, relevance to the labour market, collaboration with other providers, and addressing the needs of Albertans throughout the province (Alberta Advanced Education and Career Development, 1996c, pp. 1-2). By the end of the 1995-96 fiscal year, a total of 91 projects (10 projects in Cycle I, 35 projects in Cycle II, and 46 projects in Cycle III) creating 10,601 ongoing FTE student spaces had been approved at an annual cost of \$32 million and the Access Fund was suspended, with the remaining \$15 million reallocated to three new funding envelopes to be implemented in 1996-97 (Alberta Advanced Education and Career Development, 1996b). Annual amounts dispersed through the Access Fund since 1994 are contained in Table 5.1 in the summary of this chapter.

The Performance Envelope. The Performance Envelope was established in 1996 to "recognize and reward progress" since 1994 of public postsecondary institutions toward the system goals of accessibility, responsiveness, affordability and, for universities, research excellence (Alberta Advanced Education and Career Development, 1997a, p. 1). In 1997-98, the envelope consisted of \$15 million from the province's General Revenue Fund along with 0.5%, or approximately \$3.75 million, drawn from institutional operating grants. Funding from the envelope was awarded on the basis of nine key performance indicators developed by AECD in conjunction with institutions. The key performance indicators were divided into two parts: a learning component consisting of five indicators addressing the goals of accessibility, responsiveness, and affordability; and a research component consisting of four indicators assessing research excellence in universities.

Benchmarks were set for each of the indicators and institutions were awarded points based on their results in comparison with the benchmarks. Institutional heterogeneity was accounted for by not rating some institutions on certain indicators, and by adjusting the benchmarks to reflect the varying size, location, and purpose of

the institutions. (For all institutions, except universities, funding from the Performance Envelope depended on their progress on indicators included in the learning component. For universities, the research component was also included. For the University of Alberta and the University of Calgary, funding from the learning component was calculated on 80% of their operations grant and funding from the research component was based on 20% of their operations grant. For the University of Lethbridge, funding for the learning and research components was based respectively on 92% and 8% of its operations grant. As an institution focused on providing distance education, Athabasca University was not included in the research component). Allocations from the Performance Envelope were then awarded on the basis of the total number of points accrued by each institution (Alberta Advanced Education and Career Development, 1997a). The progress calculation chart contained in Figure 5.1 outlines each of the key performance indicators and how points were awarded for progress.

For the 1997-98 funding year, each institution received a "system performance award" of net 1% of its operating grant (a gross award of 1.5% less the 0.5% contribution to the envelope) to recognize the overall progress of the system toward the goals set out by AECD, and 17 institutions received a "progress award" amounting to an additional 0.75% or 1.5% of their operating grants, based on their superior progress toward the goals. In total, approximately \$15.1 million was allocated from the Performance Envelope in 1997-98. In July 1997, AECD announced that the size and source of the 1998-99 Performance Envelope, as well as its method of allocation, would be the same as for the 1997-98 fiscal year. Beyond that date, details of the fund were unknown, although AECD committed to reviewing the performance funding process in consultation with institutions prior to 1999-2000 (Alberta Advanced Education and Career Development, 1997b, p. 2).

Figure 5.1. Performance Envelope Progress Calculation 1997-98.

From Alberta Advanced Education and Career Development (1997a, pp. 4-5)

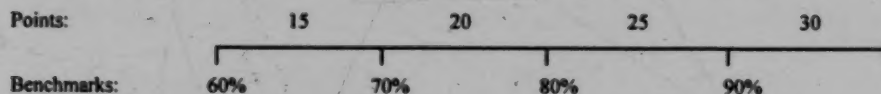
80

Learning Component:

Responsiveness: The system will increase its responsiveness to the needs of the individual learners and to the social, economic, and cultural needs of the province.

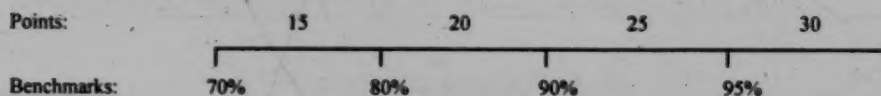
1. Employment Rate:

Percentage of graduate survey respondents employed within a specified period following completion



2. Graduate Satisfaction with Overall Quality:

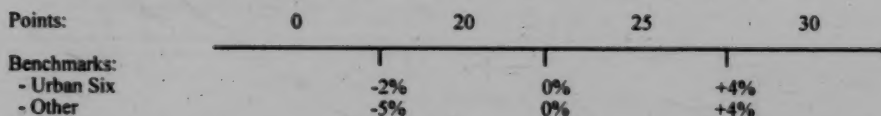
Percentage of respondents fully/somewhat satisfied with overall quality of educational experience



Accessibility: The system will encourage and support more accessible life long learning.

3. Credit Full Load Equivalent (FLE):

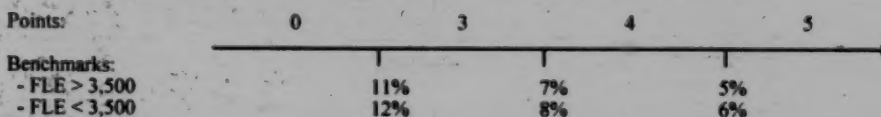
Percentage change in full-load equivalent enrolment from one period to the next



Affordability: The system will provide quality learning opportunities to the greatest number of Albertans at a reasonable cost to learner and taxpayer.

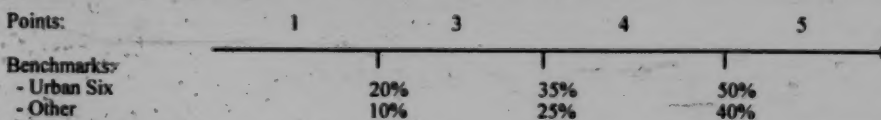
4. Administration Expenditures:

Administration expenditures as a percentage of total expenditures less ancillary expenditures

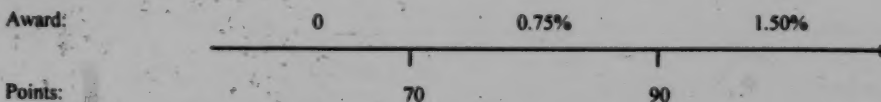


5. Enterprise Revenue:

Revenues less all government grants, tuition fees under policy, sponsored research (universities), ancillary services and earned capital contributions as a percentage of AECD grants



Performance Award:



Research Component (for universities):**Research Excellence:**

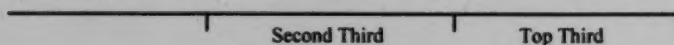
The system, through its universities, will pursue research excellence to increase access to and develop new knowledge.

6. Council Monetary Awards:

National peer group rank in terms of council awards per full-time faculty member

Points:

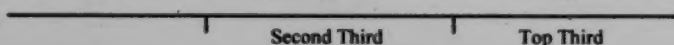
- Achievement	0	17	25
- Improvement	0	10	15

Benchmarks:**7. Citation Impact:**

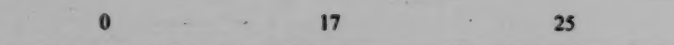
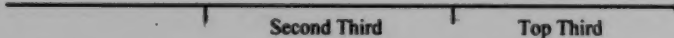
National peer group rank in terms of number of citations per research publication

Points:

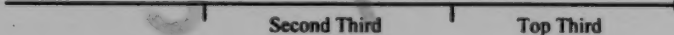
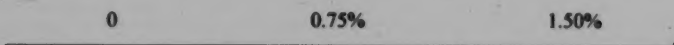
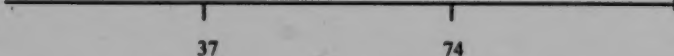
- Achievement	0	17	25
- Improvement	0	10	15

Benchmarks:**8. Community and Industry Support:**

National peer group rank in terms of number of community and industrial funding for sponsored research per full-time faculty member

Points:**Benchmarks:****9. Research Enterprise:**

National peer group rank in terms of sponsored research revenues as a percent of AECD grants

Points:**Benchmarks:****Performance Award:****Award:****Points:**

The Research Excellence Envelope. The Research Excellence Envelope was established in 1996 to "reward and foster sustained research excellence" at Alberta's four universities (Alberta Advanced Education and Career Development, 1996d, p.10). The creation of this envelope fell under the rubric of the goal of responsiveness, with the rationale that "the creation and sharing of knowledge are essential to the personal, social, cultural and economic well-being of individual Albertans and to the prosperity of the province" (Alberta Advanced Education and Career Development, 1996d, p. 1). The envelope was designed on the dual premise that "the primary component of quality research is quality people," and that "in order for Alberta universities to be able to recruit quality research faculty, they must be able to provide quality infrastructure support" (Alberta Advanced Education and Career Development, 1996d, p. 10). With funds redirected from the Access Fund, the Research Excellence Envelope originally allocated \$2 million per year for three years commencing in 1996-97 toward the recruitment of outstanding faculty through research infrastructure enhancements (Alberta Advanced Education and Career Development, 1996e, p. 16). However, in the *1997-2000 Business Plan* this amount was increased to \$3.5 million for each of the 1997-98 and 1998-99 fiscal years (Alberta Advanced Education and Career Development, 1997c, p. 13).

Funds from the Research Excellence Envelope were allocated on a two-pronged basis, with 50% of the allocation based on each university's three-year average share of granting council awards, and the other 50% based on the institution's three-year average ratio of granting council awards as a percentage of AECD operating grants. Expenditures from the allocation were to be made in relation to the research program of a targeted faculty member or research team in an area of priority designated by the respective university, and were to be incurred within a three-year period from the point of hiring. The funds could be used only for research infrastructure enhancements; faculty salaries and other general expenditures are ineligible. Eligible expenditures included the purchase or upgrading of particular research equipment, the adaptation of laboratory or other appropriate space, the

purchase of specialized or enhanced computing equipment or software, particular library acquisitions or enhancements, research assistantships, travel funds for research purposes, or unusually expensive research supplies. Additionally, universities were expected to demonstrate that funds received from this envelope had contributed to research excellence by providing AECD with annual specific outcome measures (Alberta Advanced Education and Career Development, 1996d, pp. 10-11).

The Learning Enhancement Envelope. The Learning Enhancement Envelope was established in 1996 to support the development of what AECD called a "virtual learning system," or a system that "reduces the barriers of time and place by linking teachers, students and curriculum through technology" (Alberta Advanced Education and Career Development, 1996f, p. 1). Established under the goals of increased accessibility and improved responsiveness, the purpose of this envelope was "not simply to add technology to what is already being done. It is to use technology to provide alternate methods to the traditional delivery of learning opportunities and to provide related learner support services" (Alberta Advanced Education and Career Development, 1996f, p. 3). With funds reallocated from the Access Fund, the Learning Enhancement Envelope was to provide institutions with \$10 million per year for three years commencing in 1996-97 for these activities:

1. Adapt curriculum for new, technologically supported models of learning for students who may be on a campus, at a community site, at home or at a workplace, and test these models.
2. Increase the number of courses and programs that are available to students who need access to opportunities from a distance.
3. Design training that will help students, support staff and instructors to acquire the skills necessary to study and work in settings that integrate technology with learning.
4. Conduct research that will add to knowledge about the integration of technology with teaching and learning.

5. Devise and test models of learner support that will be required to successfully integrate technology with learning.
6. Purchase equipment and infrastructure that are required to increase access or to deliver curriculum using technology (Alberta Advanced Education and Career Development, 1996f, pp. 7-8).

All public postsecondary institutions and private institutions whose programs were accredited by the Private Colleges Accreditation Board were eligible for funding from the Learning Enhancement Envelope. For 1996-97, the initial year of the envelope's operation, \$5 million was divided among all eligible institutions on the basis of 1994-95 FTE enrolments. The remaining \$5 million was distributed on the basis of technology integration plans developed by each institution demonstrating how the institution would contribute to the development of a virtual learning system over a period of three to five years, and grants were made for specific components of the plan. For the 1997-98 and 1998-99 fiscal years, funding from the Learning Enhancement Envelope was to be based solely on the institutions' technology integration plans, which were to be updated and submitted annually to AECD (Alberta Advanced Education and Career Development, 1996f, pp. 5-6).

The Infrastructure Renewal Envelope. The Infrastructure Renewal Envelope was established in 1996 with funds drawn from general revenue, the Access Fund, and Lottery Fund proceeds (Alberta Advanced Education and Career Development, 1996b; 1996g). This envelope fell under the general system goal of maintaining quality, and was created to "ensure that Alberta continues to have a first-rate infrastructure" thereby enhancing its ability to "provide quality education" and "attract top faculty and learners" (Alberta Advanced Education and Career Development, 1997c, p. 11). Originally, the Infrastructure Renewal Envelope consisted of \$23 million to be used to upgrade and replace equipment at Alberta's public postsecondary education institutions, however, in June 1997, \$105 million was added to the envelope for facilities renewal (Alberta Advanced Education and Career Development, 1996g; 1997c).

The \$23 million equipment category of the envelope was to be dispersed over three years, with \$10.5 million allocated in 1996-97, \$7.5 million in 1997-98, and \$5 million in 1998-99. The funds could be used only to modernize and update equipment, including computers, for teaching purposes or for assisting directly with student learning, and matching funds from internal sources or private support are expected. The funds were to be allocated according to a formula, with 50% of the allocation based on 1993-94 capital renewal grants and 50% based on past enrolment levels (Alberta Advanced Education and Career Development, 1997d).

The \$105 million facilities category of the Infrastructure Renewal Envelope was also to be dispersed over three years, with approximately \$35 million to be allocated per year commencing in 1997-98. Fifty million dollars of the total \$105 million was to be allocated to all public, board-governed institutions on the basis of a recent AECD system-wide survey of infrastructure renewal needs. AECD allocated \$20 million on this basis in 1997-98, and planned to allocate a further \$15 million per year on this basis in 1998-99 and 1999-2000. The remaining \$55 million of the facilities category fund was to be allocated to projects according to institutional and system priorities on the basis of applications to the department. For projects supported with this funding, the six large urban institutions which included the Universities of Alberta and Calgary, the Northern and Southern Alberta Institutes of Technology, Grant MacEwan Community College, and Mount Royal College, were required to contribute an amount from non-government sources equivalent to at least 40% of total project costs. All other public institutions in the province were required to contribute at least 20% of the total costs for such projects (Alberta Advanced Education and Career Development, 1997e).

The Intellectual Infrastructure Partnership Program. The Intellectual Infrastructure Partnership Program (IIPP) was established in the *1997-2000 Business Plan* and was AECD's newest funding envelope. The objective of this envelope was "to increase the research excellence and competitiveness of Alberta universities and research hospitals through investing strategically in their research infrastructure"

(Alberta Advanced Education and Career Development, 1997f). Falling under the system goal of improved responsiveness, the rationale for creating the envelope was that "the development and application of new knowledge has become central to competitive success with[in] the global economy," and that universities and research hospitals are "the key" to the development and application of new knowledge and technologies (Alberta Advanced Education and Career Development, 1997f).

Beginning in 1997-98, the IIPP was to provide \$15 million per year for three years to Alberta universities and research hospitals for research equipment and related resources in order to modernize and enhance the quality of the province's research infrastructure. The funds were to be used to lever investments by the private sector, the federal Canada Foundation for Innovation, and the universities in research infrastructure projects of demonstrated excellence, of broad strategic significance at the system level, and in areas that are provincial priorities. Funds from the IIPP were to be for research infrastructure only, and could not be used to underwrite operating expenditures such as salaries and benefits. Eligible expenditures included equipment, specimens, scientific collections, computer hardware and software, information databases, communication linkages and other intangible properties used for carrying out research, including housing and installations essential for the use and servicing of those things (Alberta Advanced Education and Career Development, 1997f).

Allocation of the IIPP was to be through a competitive process, with awards made at the project level. All disciplines were eligible for funding, but it was "expected that the majority of applications will be made in the areas of health, the natural sciences and engineering, and environmental sciences" (Alberta Advanced Education and Career Development, 1997f). A review team was to make recommendations to the Minister on applications for funding that would be comprised of a public chair; three external reviewers from the research community, business, and the public at large; one member from AECD; one member from the Alberta Science and Research Authority; one member from the Alberta Heritage Foundation for Medical Research; and one MLA. The primary criterion for

adjudication was to be quality, with submitting universities required to demonstrate that the researchers benefiting from the proposed infrastructure improvements are of the highest quality. Applicants were to address the peer review record of the respective researchers, research funding history and prospects, and strategic importance of the research team and the proposal. Additionally, each application was required to provide evidence of a significant financial commitment made by a partner or partners from the private sector (business or non-profit sector) towards the costs of the project. It was expected that the general IIPP contribution toward the cost of the project would be between 30% and 40% but could, in exceptional circumstances, reach 60% (Alberta Advanced Education and Career Development, 1997f).

In Year One (1997-98) the IIPP was to run programs in the category of Equipment (projects from \$100,000 to \$350,000) and Major Equipment and Installations (projects from \$350,000 to \$2,000,000). Funds for the Equipment category were not subject to competition, but were to be advanced to the universities on a formula basis. Additional program streams, Collaborative Projects and Strategic Development Projects, were to become operational in Year Two in order to provide universities with the time required to prepare proposals and obtain matching funds (Alberta Advanced Education and Career Development, 1997f).

Summary and Discussion

The changes in the funding of public postsecondary institutions in Alberta since 1994 can be conceptualized in terms of a shift from a system of expanding, unconditional, recurrent funding toward a system of contracted, more conditional and fixed-term funding, with four primary objectives: (a) to reduce the government's proportion of support for the general operating costs of the higher education system without compromising accessibility and quality; (b) to increase the proportion of support for the general operating costs of the system from those who most directly benefit from it—that is, students and industry, the consumers of higher education products and services; (c) to improve the responsiveness of the system to market

demands and more directly serve the needs of economic growth; and (d) to increase the efficiency of the system through the introduction of business-like practices and market-based stimuli.

Prior to 1994, public institutions in Alberta were funded primarily through annual block grants divided into two main categories, operating and capital, which were allocated separately on the basis of previous years' funding levels. Typically, operating grants were expanding funds because they were adjusted annually to account for inflation, new programs, the operating costs of new space, and special circumstances such as extraordinary enrolment or special projects. In contrast, capital grants were more static funds with annual allocations having been capped at 1986-87 levels since the 1990-91 fiscal year, but growth in this type of funding did occur through the periodic provision of separate grants to fund new capital construction or special projects.

In 1994, in order to achieve greater affordability, productivity, and efficiency as set out in the *Three-year Business Plan* and *New Directions*, grants for new capital construction were suspended for three years and capital renewal grants were rolled into operating grants based on 1993-94 levels. This combined grant was then reduced by 19.7% between 1994-95 and 1996-97, and capped at the 1996-97 level. Institutions were required to prepare three-year business plans indicating how the grant reductions would be absorbed without incurring deficits, were encouraged to reduce employee salaries by 5%, and were required to renegotiate their collective agreements to allow for academic staff adjustment. To ensure that levels of accessibility and numbers of student places were maintained despite the grant reductions, an enrolment corridor policy was implemented that would reduce an institution's grant even further if enrolment at the institution fell by more than 2% of 1993-94 levels for the six major urban institutions, and 5% of 1993-94 levels for all other institutions in the province. To offset the impact of the grant reductions, the ceiling on tuition fees was raised from 20% to 30% of annual net operating expenditures to allow for a greater proportion of institutional funding to come directly

from students, and a portion of the funding withdrawn from operating grants was reinjected by way of envelope funding, a new mechanism of funding that targeted funds for specific purposes identified in the *Three-year Business Plan and New Directions*, and tied funding growth to institutional performance.

Between 1994 and 1997, six funding envelopes were established for the explicit purposes of expanding student access (Access Fund; Learning Enhancement Envelope), fostering research excellence (Research Excellence Envelope; Intellectual Infrastructure Partnership Program [IIPP]), maintaining quality through capital investment (Infrastructure Renewal Envelope), and rewarding progress toward system goals (Performance Envelope). Less explicitly, the envelopes were also intended to bolster economic growth by linking them to two broad market needs: the development of a larger, better trained, and therefore more employable workforce (Access Fund; Learning Enhancement Envelope; Infrastructure Renewal Envelope), and the development of globally competitive applied new knowledge and technologies (Research Excellence Envelope; Infrastructure Renewal Envelope; IIPP). Finally, with the provision that matching funds be in place prior to allocation, the Infrastructure Renewal Envelope and the IIPP were intended to encourage institutions to generate greater private sector investment in higher education research and infrastructure.

Unlike block grants, the envelopes are competitive funds, awarded to institutions either in whole or in part on the basis of various measures of performance, including demonstration of quality or excellence (Access Fund; IIPP), demonstration of market relevance (Access Fund; Learning Enhancement Envelope; IIPP), demonstration of need (Infrastructure Renewal Envelope), procurement of matching funds (Infrastructure Renewal Envelope; IIPP), and achievement (Research Excellence Envelope; Performance Envelope). The envelopes encourage competition both within and between the various higher education sectors: universities compete for funds from the Research Excellence Envelope and the IIPP, public institutions compete for funds from the Performance and Infrastructure Renewal Envelopes, and

private as well as public institutions compete for funds from the Access Fund and the Learning Enhancement Envelope.

With the exception of the Access Fund and Performance Envelope, the envelopes are three-year funds restricted to expenditures in areas other than general operating costs. Access Fund funds are recurrent funds restricted to the start-up and operating costs of new programs approved under the envelope. Performance Envelope funds are also recurrent funds, and are the only envelope funds that are completely unrestricted and therefore may be spent on general operating costs. The Performance Envelope is unique in that funding for the envelope is drawn both from provincial general revenue and small percentages of funds reallocated from institutional operating grants. Although the Performance Envelope resulted in a net 1% increase in general operating funds for the 1997-98 and 1998-99 fiscal years, it is uncertain if this envelope in the future will be a vehicle for the expansion of general operating funds or merely a means of redistributing extant operating funds to top performing institutions. New funds have not been committed to the envelope beyond the 1998-99 year, thereby leaving the funding of the envelope dependent upon percentages sliced off existing operating grants. A summary of the amount of funds withdrawn from operating grants and reinjected through funding envelopes since 1993-94 is contained in Table 5.1.

	1994-95 (\$millions)	1995-96 (\$millions)	1996-97 (\$millions)	1997-98 (\$millions)	1998-99 (\$millions)	1999-2000 (\$millions)	TOTAL (\$millions)
Reductions in Operating Grants from the 1993-94 Fiscal Year:							
11%	(90.00)	-	-	-	-	-	(90.00)
11% + 7%	-	(147.00)	-	-	-	-	(147.00)
11% + 7% + 3%	-	-	(186.00)	(186.00)	(186.00)	(186.00)	(744.00)
0.5% reallocation to the Performance Envelope	-	-	-	(3.75)	(3.75)	undetermined	(7.5)
Total	(90.00)	(147.00)	(186.00)	(189.75)	(189.75)	(186.00)	(988.50)
Introduction of Envelope Funding:							
Access Fund	1.50	9.10	32.00	26.40	30.00	30.00	129.00
Performance	-	-	-	15.10	15.10	undetermined	30.20
Research Excellence	-	-	2.00	3.50	3.50	undetermined	9.00
Learning Enhancement	-	-	10.00	10.00	10.00	undetermined	30.00
Infrastructure Renewal	-	-	-	-	-	-	-
- equipment	-	-	10.50	7.50	5.00	undetermined	23.00
- facilities	-	-	-	35.00	35.00	35.00	105.00
Intellectual Infrastructure	-	-	-	15.00	15.00	15.00	45.00
Total	1.50	9.10	54.50	112.50	113.60	80.00	371.20
NET REDUCTIONS FROM THE 1993-94 FISCAL YEAR	(88.50)	(137.90)	(131.50)	(77.25)	(76.15)	(106.00)	(617.30)

Note: This table does not account for any reductions in operating grants resulting from penalties imposed under the Enrolment Corridor Policy.

Table 5.1

Summary of Changes in Provincial Funding of Postsecondary Education Institutions in Alberta, 1994-99

CHAPTER 6

THE MACRO-INSTITUTIONAL RESPONSE OF THE UNIVERSITY OF ALBERTA

This chapter presents the findings in relation to Specific Research Question 2: *How has central administration at the University of Alberta responded to the changes in provincial funding policy since 1994?* The chapter begins with a section that identifies the major financial policies adopted by the University of Alberta (U of A) to the end of the 1996-97 fiscal year in response to the provincial funding changes. This section describes the components of each of the policies, how they were applied, and their outcomes. To provide context for the findings presented in Chapter 7, the description emphasizes the application of the policies to the academic units. As a conclusion to the chapter, the findings are summarized and discussed in thematic form.

Financial Policy at the University of Alberta, 1994-97

In Chapter 4 it was noted that in response to financial difficulties dating back to the early 1980s and the controversy surrounding President Davenport's 1991 restructuring initiative (*Maintaining Excellence*, University of Alberta, 1991a), the U of A had developed a strategic plan in 1993 called *Degrees of Freedom* (University of Alberta, 1993b) which contained a new statement of mission for the university, a set of principles to adhere to in support of the mission, a vision for the university in the year 2005, along with 21 strategies and 46 recommendations designed to achieve the vision (see Appendix F). The plan had ominously assumed that while enrolment would continue to expand over the next decade, direct public support by way of operating grants would not. Consequently, to maintain national and international standards of excellence in teaching and research, the university would have to increase support from other sources, as well as adopt a selective approach to the allocation of resources and the setting of priorities at all levels of the institution. The

new mission, principles, vision, strategies, and recommendations set out in *Degrees of Freedom* were structured around these broad guidelines (see Chapter 4 and Appendix F), and all post-1993 financial policy was tightly linked to *Degrees of Freedom* (University of Alberta, 1994f; 1995c; 1996e).

When AECD announced its retrenchment and restructuring plans in early 1994, the U of A was on the brink of implementing a major retrenchment and restructuring plan of its own, *Quality First* (University of Alberta, 1994a), which stemmed directly from recommendations made in *Degrees of Freedom* and would lead to a significant streamlining of operations through the closure, downsizing, or reorganization of high cost, low demand, and duplicated programs and units (see Chapter 4 and Appendix G). However, as Glenn Harris, the VP (Finance and Administration), explained in April 1994, given "that major restructuring initiatives . . . do not deliver financial benefits quickly" (University of Alberta, 1994f, p. 9) and "the need to achieve a balanced budget in 1994-95, and to do so in ways that position the institution appropriately to achieve balanced budgets in succeeding years" (University of Alberta, 1994f, p. 8), these plans alone were inadequate to address the extent and the immediacy of the drop in operating revenue that would occur as the result of AECD's planned grant reductions.

As shown in Table 6.1, when the 1994 capital renewal grant is combined with the base operating grant, annual general operating revenue from AECD dropped by \$29.1 million in 1995, an additional \$17.1 million in 1996, and a further \$6.6 million in 1997—a total reduction of \$52.8 million or approximately 20% over the three years. The significance of these reductions within the context of total institutional revenue is depicted in Table 6.2, which shows that even in spite of steadily increasing tuition and fees revenue, annual unrestricted revenue—that is, revenue available for general operating expenditures—had fallen by \$28.8 million or 8.0% by 1997. These and other changes in institutional revenue presented in Table 6.2 will be discussed in greater depth in subsequent sections of this chapter.

Type of Revenue	Amount			Difference		
	1994	1995	1996	1997	1994-95	1995-96
Unrestricted:						
General Operating	260,860	240,094	222,935	216,303	(20,766)	(17,159)
Less: payments to colleges	(499)	(428)	(406)	(339)	71	22
Total Unrestricted	260,361	239,666	222,529	215,964	(20,695)	(17,137)
Internally Restricted:						
Special Purposes	49	5	9	165	(44)	4
Externally Restricted:						
Conditional Grants:						
Access Fund	712	373	3,468	3,579	(339)	3,095
Learning Enhancement	n/a	62	1,052	1,592	62	990
Research Excellence	n/a	n/a	n/a	2,459	n/a	n/a
Infrastructure Renewal-Equip't	n/a	n/a	n/a	1,030	n/a	n/a
Total Conditional Grants	712	435	4,520	11,637	(277)	4,085
Capital:						
Capital Renewal Grant	8,401	n/a	n/a	n/a	(8,401)	n/a
Projects	2,804	1,474	1,000	-	(1,330)	(474)
Total Capital	11,205	1,474	1,000	-	(9,731)	(474)
Special Purposes	2,411	1,853	1,945	2,532	(558)	92
Total Externally Restricted	14,328	3,762	7,465	14,169	(10,566)	3,703
TOTAL REVENUE	274,738	243,433	230,003	230,298	(31,305)	(13,430)
						295
						(44,440)

Note: Base operating grants appear in the Unrestricted-General Operating category. The capital renewal grant appears in the Externally Restricted-Capital category for 1994 only. In 1995, the capital renewal grant was combined with the base operating grant. In 1996, the U of A was assessed an enrolment corridor penalty of \$306,717. This table is based on information provided in Schedules A, 1B, 2, 4A, 4B, and 4C, *Financial Statements and Supplementary Schedules* (University of Alberta, 1994c; 1995b; 1996d; 1997e); *1994-95 Operating and Capital Budget Estimates* (University of Alberta, 1994d); *1995-96 Budget Plan* (University of Alberta, 1995c); *Recommended 1996-97 Budget* (University of Alberta, 1996c), and *Historical Actual Revenues* (University of Alberta, 1998a).

Table 6.1
University of Alberta Revenue From Alberta Advanced Education and Career Development (in Thousands of Dollars)
for the Years Ended March 31, 1994-97

Type & Source of Revenue	Amount			Difference		Total
	1994	1995	1996	1994-95	1995-96	
Unrestricted:						
Province of Alberta-AECD	260,361	239,666	222,529	(20,695)	(17,137)	(44,397)
Province of Alberta-other departments	2,518	106	93	(2,412)	(13)	(2,518)
Total Province of Alberta	262,879	239,772	222,622	(23,107)	(17,150)	(46,915)
Other government sources	141	214	159	73	(55)	(123)
Credit course tuition & fees	65,562	69,641	74,784	4,079	5,143	9,495
Donations and grants	303	407	621	104	214	432
Investment income-cash management	3,997	6,198	7,775	2,201	1,577	5,135
Endowment earnings	-	-	-	n/a	n/a	n/a
Sales of goods & services	25,080	23,845	23,431	(1,235)	(414)	(6,134)
Total Unrestricted	357,962	340,077	329,392	(17,885)	(10,685)	(28,888)
Internally Restricted:						
Province of Alberta-AECD	49	5	9	(44)	4	116
Province of Alberta-other departments	4,119	3,321	1,809	(798)	(1,521)	(666)
Total Province of Alberta	4,168	3,326	1,809	(842)	(1,517)	(1,550)
Other government sources	4,471	5,861	8,452	1,390	2,591	249
Credit course tuition & fees	-	-	-	n/a	n/a	n/a
Donations and grants	11,390	9,945	4,937	(1,445)	(5,008)	(714)
Investment income-cash management	1,785	1,994	570	209	(1,424)	(254)
Endowment earnings	2,142	3,026	4,250	884	1,224	(282)
Sales of goods & services	58,704	51,858	51,291	(6,846)	(567)	(5,012)
Total Internally Restricted	82,660	76,010	71,309	(6,650)	(4,701)	(5,103)
Externally Restricted:						
Province of Alberta-AECD	14,328	3,762	7,465	(10,566)	3,703	6,704
Province of Alberta-other departments	16,884	18,914	23,872	2,030	4,958	(1,552)
Total Province of Alberta	31,212	22,676	31,337	(8,536)	8,661	5,277
Other government sources	45,932	50,734	69,332	4,802	18,598	(4,281)
Credit course tuition & fees	-	-	-	n/a	n/a	198
Donations and grants	22,990	24,042	31,784	1,052	7,742	4,073
Investment income-cash management	-	4	-	4	(4)	32
Endowment earnings	11,114	10,340	9,152	(774)	(1,188)	(2,606)
Sales of goods & services	890	1,764	1,481	874	1,219	1,810
Total Externally Restricted	112,138	109,560	143,086	(2,578)	33,526	34,735
TOTAL REVENUE	552,760	525,647	543,787	(27,113)	18,140	744

Note: Deferred contributions are not accounted for in these figures. This table is based on information provided in Schedule A, Financial Statements and Supplementary Schedules (University of Alberta, 1994c, 1995b, 1996d, 1997e) and Table 6.1.

Table 6.2
University of Alberta Revenue From All Sources (in Thousands of Dollars) for the Years Ended March 31, 1994-97

Compounding the issue of the grant reductions was the considerable uncertainty regarding AECD's announced intention to restructure the funding formula to reward performance, efficiency, and effectiveness, how these changes would be implemented, and whether they would positively or negatively affect future institutional revenue. As discussed in Chapter 5, most of the envelope funds were not established until 1996-97 and subsequent fiscal years. In 1994, when the grant reductions were announced, only the Access Fund had been committed to by AECD, with a mere \$1.5 million slated for allocation in 1994-95. Indeed, as Table 6.1 illustrates, the amount of revenue received by way of envelope funds to the end of the 1996-97 fiscal year (approximately \$8.0 million) was negligible in comparison to the amount withdrawn from operating grants (\$52.8 million). At the same time, although AECD had announced that the ceiling on tuition fees would be raised in compensation for the grant reductions, the extant 20% cap was still in place for the 1994-95 fiscal year. As shown in Table 6.2, the increases in revenue generated through tuition and fees had only a marginal impact on unrestricted revenue until 1997 when the annual difference jumped to \$9.5 million, which was almost double that of the previous two years. Enrolment changes over the three years are discussed in greater depth elsewhere in this chapter.

What could be certain as of April 1994, concluded Glenn Harris, was "that there will be very significant, continuing reductions in the resources available to support the University's established, ongoing programs and activities" (University of Alberta, 1994f, p. 7). As a result, the U of A's three-year budgetary planning would be "heavily dependent on expenditure reductions realized at the local level" (University of Alberta, 1994f, p. 9), and "all reasonable steps are being taken to increase revenues" (University of Alberta, 1994f, p. 8). In the following sub-sections, specific measures employed in support of these two broad financial policies and their outcomes are described.

Expenditure Reduction

Assuming that provincial grant reductions would be implemented as announced, that enrolments would be sustained at 1993-94 levels throughout the three-year planning period, that tuition fees would continue to rise at the maximum rate allowed by the tuition fee policy, that interest on investment income would remain low, and after allowing for annual transfers of \$6.7 million (which was the 1994 capital renewal grant of \$8.4 million reduced by 19.7%) from operating to capital, it was estimated in 1994 that university operating expenditures would have to be reduced by \$24.1 million in 1994-95, an additional \$12 million in 1995-96, and a further \$3 million in 1996-97—a total of \$39.1 million over three years—in order to maintain a balanced budget (University of Alberta, 1994f, pp. 7-8). As noted above, these reductions were to be incurred at the local or unit level, and they were achieved primarily through the two measures described below.

Base budget cuts. In 1994, academic units were targeted for base budget reductions that averaged 12% over three years—5% in 1994-95, 5% in 1995-96, and 2% in 1996-97—and support units for reductions that averaged 15%—6% in 1994-95, 6% in 1995-96, and 3% in 1996-97 (University of Alberta, 1994f, p. 9). However, in 1996-97 due to a shortfall in projected revenue resulting from a drop in enrolment below 1993-94 levels, the average reductions for that year were increased by 0.5% for both types of units (University of Alberta, 1996e, p. 2). The percentage reductions in each of the three years were applied to the 1994-95 base before reductions (Appendix A, University of Alberta, 1995c; 1996e) and, consistent with *Degrees of Freedom*, the VPs exercised selective budget treatment of their various units, and Deans and Directors, in turn, were selective in their own internal allocations (University of Alberta, 1994f, p. 9).

Adjustments to the budgets of academic units were based on “changes in student numbers, academic quality and the strength of the unit’s overall strategy and plans” (University of Alberta, 1996e, p. 2), while those of administrative and support units were tied to institutional priorities and key strategic initiatives emerging from

Degrees of Freedom (University of Alberta, 1994f; 1995c; 1996e). For example, in 1995 and 1996, additional budget reductions were imposed on a number of non-academic units in order to generate the operating funds necessary to support the implementation of new computing systems, a recommendation in *Degrees of Freedom* (Recommendation 39, Appendix F) that was intended to improve the quality and efficiency of administrative services across the entire campus (University of Alberta, 1994f, p. 10; 1995c, p. 6). An account of the variance in base budget reductions by cost centre and sub-unit is presented in Column A of Table 6.3.

As shown, the faculties' base budget reductions averaged 12.9% over the three years, with those applied to Agriculture, Forestry and Home Economics, Dentistry, Education, the Interdisciplinary Research Units, Law, Nursing, Physical Education and Recreation, Faculté Saint-Jean, and Extension above the average. Dentistry and Physical Education were special cases because the extent of the budget reductions were related to their involvement in the *Quality First* restructuring. Specifically, Dentistry was merged with Medicine in April 1996, in May 1994 the Department of Athletic Services in Physical Education became a cost-recovery unit by moving athletic fees from central revenue to the department, and in January 1995 the Faculty of Physical Education was non-departmentalized. Nursing was also a special case due to an approximately \$3.5 million annual conditional grant received for the collaborative nursing program established in response to the closure of the hospital-based schools of nursing in the province. With regard to the numerous non-academic units, the only pattern evident is that the units within Governance and Administrative and General Services, in general, were taxed at higher rates than those within Direct Support and Student Services.

In most cases, the impact of the base budget reductions was either compounded or mitigated by changes in the level of supplementary operating funds budgeted for the various units. As explained in the notes to Table 6.3, supplementary funding includes new base allocations and "soft" or one-time funding for specific

Table 6.3

University of Alberta Difference in Base and Total Operating Budgets by Cost Centre for the Years Ended March 31, 1995-97

Cost Centre	Column A				Column B		
	Percentage Reduction* in Base Operating Budget				Percentage Difference in Total Operating Budget**		
	1995	1996	1997	Total	94-95	95-96	96-97
Faculties:							
Agriculture, Forestry & Home Ec.	(5.1)	(5.0)	(2.9)	(13.0)	(3.8)	(4.2)	(1.5)
Arts	(5.0)	(5.0)	(2.6)	(12.6)	(4.3)	(1.5)	(2.4)
Business	(5.0)	(5.0)	(2.7)	(12.7)	(4.4)	(2.8)	(0.6)
Dentistry	(6.1)	(8.0)	(3.5)	(17.6)	(4.3)	(8.7)	(4.3)
Education	(5.2)	(7.5)	(5.0)	(17.7)	(5.9)	(6.4)	(4.1)
Engineering	(5.1)	(4.5)	(2.0)	(11.6)	(4.4)	(3.1)	(1.8)
Graduate Studies & Research	(5.0)	(1.4)	(5.0)	(11.4)	1.9	(0.5)	8.1
Native Studies	-	(3.0)	-	(3.0)	-	(2.7)	3.1
Interdisciplinary Research Units	(7.9)	(6.0)	(4.0)	(17.9)	(6.3)	(5.9)	(4.2)
Law	(5.5)	(5.5)	(2.8)	(13.8)	(4.9)	(5.9)	(1.4)
Medicine	(5.1)	(5.0)	(2.3)	(12.4)	(3.4)	(4.8)	(1.5)
Nursing	(7.0)	(7.0)	(5.2)	(19.2)	(6.1)	(3.6)	(6.2)
Pharmacy & Pharmaceutical Sciences	-	(3.0)	(1.5)	(4.5)	-	(3.3)	(1.8)
Physical Education & Recreation	(5.8)	(5.0)	(3.2)	(14.0)	(2.4)	-	0.4
Rehabilitation Medicine	(3.0)	(3.0)	(1.6)	(7.6)	0.1	(3.3)	(3.0)
Saint-Jean	(5.1)	(5.5)	(5.0)	(15.6)	(4.4)	(5.6)	(4.6)
Science	(5.1)	(4.5)	(2.6)	(12.2)	(4.5)	(1.3)	(3.0)
Special Sessions	-	-	-	-	-	-	-
Extension	(13.2)	-	-	(13.2)	(0.9)	1.8	(2.0)
Sub-total	(5.0)	(5.0)	(2.9)	(12.9)	(3.9)	(3.0)	(2.1)
Conditional Grants	(6.3)	n/a	n/a	(6.3)	(6.3)	n/a	n/a
Contingencies	-	-	-	-	31.8	(67.4)	25.5
Enrolment Maintenance	-	-	-	-	100.0	-	-
Faculty Renewal Bridging	n/a	n/a	-	-	n/a	n/a	-
Other Accounts	-	-	-	-	-	-	-
Unallocated Adjustments	n/a	-	-	-	n/a	135.1	-
Total Faculties	(5.2)	f/u	(2.5)	f/u	(2.9)	(4.0)	(2.9)
Direct Support:							
Library	(6.0)	n/a	n/a	(6.0)	0.4	n/a	n/a
Library Operations	n/a	(6.0)	(4.0)	(10.0)	n/a	(6.5)	(4.6)
Library Acquisitions	n/a	-	-	-	n/a	7.3	6.9
Canopy	n/a	-	n/a	-	n/a	(37.5)	n/a
Computing & Network Services	(6.0)	(5.4)	(4.0)	(15.4)	(2.9)	(3.3)	(5.5)
University Teaching Services	-	-	-	-	-	15.4	-
Museums and Collections	n/a	(6.0)	(3.9)	(9.9)	n/a	(6.4)	(4.5)
University Press	n/a	(6.0)	-	(6.0)	n/a	(5.9)	-
Other Accounts	(6.0)	-	-	(6.0)	(4.8)	-	-
Unallocated Adjustments	n/a	-	-	-	n/a	94.9	-
Total Direct Support	(6.0)	f/u	(3.5)	f/u	(0.5)	(2.3)	(2.8)

Cost Centre	Column A				Column B		
	Percentage Reduction* in Base Operating Budget				Percentage Difference in Total Operating Budget**		
	1995	1996	1997	Total	94-95	95-96	96-97
Student Services:							
Student Services	(6.0)	-	-	(6.0)	(1.8)	-	-
Registrar	(6.0)	(2.0)	-	(8.0)	(4.7)	(2.2)	2.5
Student Awards	(6.0)	-	-	(6.0)	(5.3)	-	114.2
Convocation and Induction	n/a	-	-	-	n/a	-	-
Student Identity Cards	n/a	-	-	-	n/a	-	-
Unallocated Adjustments	n/a	-	-	-	n/a	29.7	-
Other Accounts	(6.0)	n/a	n/a	(6.0)	(4.6)	n/a	n/a
Total Student Services	(6.0)	0/u	-	0/u	(3.3)	(1.1)	5.3
Governance:							
Senate	(6.0)	-	-	(6.0)	(5.0)	-	-
Board of Governors	(22.0)	(22.7)	(36.6)	(81.3)	(19.3)	(32.8)	(53.6)
Unallocated Adjustments	n/a	-	-	-	n/a	414.4	-
Total Governance	(16.4)	0/u	(24.3)	0/u	(13.9)	(15.5)	(31.4)
Administration & General Services:							
President	(6.0)	-	-	(6.0)	(5.3)	-	53.5
Secretariat	(8.0)	-	(4.0)	(12.0)	(7.1)	-	(4.5)
VP (Academic)	(6.0)	(6.0)	(4.0)	(16.0)	(4.6)	(6.5)	(4.6)
VP (Finance & Administration)	(6.1)	(6.0)	(4.0)	(16.1)	(5.8)	(1.5)	(3.5)
Technical Resource Group	(5.9)	(4.2)	(4.0)	(14.1)	(4.0)	(4.5)	(4.5)
Occupational Health & Safety	(7.0)	(7.0)	-	(14.0)	(5.7)	(7.5)	-
Plant Rentals	-	-	n/a	-	-	-	n/a
Physical Plant	(6.5)	(7.0)	(4.0)	(17.5)	(5.7)	(7.6)	(4.8)
Planning and Development	(6.0)	(7.0)	(9.5)	(22.5)	(5.4)	(7.9)	(11.7)
Internal Audit	-	-	-	-	(1.7)	-	-
Comptroller	(4.5)	(8.6)	-	(13.1)	(3.7)	(8.9)	-
Budget and Statistics	(5.6)	(7.0)	(4.0)	(16.6)	(5.5)	(7.1)	(4.1)
Pensions and Benefits	(7.5)	n/a	n/a	(7.5)	(4.9)	n/a	n/a
Personnel Services	(9.5)	n/a	n/a	(9.5)	(8.5)	n/a	n/a
Human Resources Group	n/a	(7.0)	(4.0)	(11.0)	n/a	(7.4)	(4.6)
Organizational Development	n/a	-	(15.8)	(15.8)	n/a	-	(15.8)
Materials Management	(6.3)	(7.0)	(2.7)	(16.0)	(5.0)	(7.6)	(3.2)
VP (Research)	(4.5)	(6.0)	(4.0)	(14.5)	(5.2)	(7.0)	12.5
Research Grants Office	(5.0)	(6.0)	(4.0)	(15.0)	(4.7)	(6.4)	(4.4)
Intellectual Property & Contracts	-	n/a	n/a	-	119.6	n/a	n/a
Industry Liaison Office	n/a	-	(4.0)	(4.0)	n/a	-	(1.9)
VP (Dev't & Community Affairs)	(6.0)	(6.0)	n/a	(12.0)	(4.5)	(6.4)	n/a
External Affairs	n/a	n/a	-	-	n/a	n/a	-
Public Affairs	(6.0)	(6.0)	-	(12.0)	(5.1)	(6.2)	-
Advancement	(6.0)	(6.0)	n/a	(12.0)	(5.2)	(6.7)	n/a
Admin Services-External Affairs	n/a	n/a	-	-	n/a	n/a	-
Alumni	(6.0)	(6.0)	-	(12.0)	(5.4)	(6.4)	-
Development	(6.0)	(6.0)	-	(12.0)	(4.9)	(6.8)	-
New Trail	n/a	(6.0)	-	(6.0)	n/a	(7.0)	-
Project Leadership	n/a	(6.0)	-	(6.0)	n/a	(6.2)	-
VP (Student & Academic Services)	(66.6)	n/a	n/a	(66.6)	(68.2)	n/a	n/a
Human Rights	(6.0)	(7.0)	3.1	(9.9)	(4.5)	(7.4)	16.5
Campus Security Services	(6.0)	(2.4)	(1.8)	(10.2)	(5.2)	(2.6)	(2.0)
Other Accounts	(6.0)	-	-	(6.0)	(2.6)	-	-
Unallocated Adjustments	n/a	-	-	-	n/a	141.0	-
Total Administration & General Services	(6.5)	0/u	(2.9)	0/u	(5.0)	(5.4)	(2.4)

Cost Centre	Column A				Column B		
	Percentage Reduction* in Base Operating Budget				Percentage Difference in Total Operating Budget**		
	1995	1996	1997	Total	94-95	95-96	96-97
General Expense:							
Plant Rentals	n/a	n/a	-	-	n/a	n/a	-
Utilities	-	-	-	-	3.7	-	-
Plant Insurance	-	n/a	-	-	(13.1)	n/a	n/a
Property & Liability Insurance	n/a	n/a	-	-	n/a	n/a	-
Legal/Professional Fees	-	-	-	-	-	-	-
University Systems Development	-	n/a	n/a	-	-	n/a	n/a
Undistributed Staff Benefits	-	-	-	-	-	-	-
Administrative Recoveries	-	-	-	-	-	12.9	-
University Contingency	-	-	-	-	-	15.5	117.6
Provision	-	n/a	n/a	-	(100.0)	n/a	n/a
Early Retirement Incentive	-	n/a	n/a	-	100.0	n/a	n/a
Cost Containment	n/a	-	-	-	n/a	-	(53.1)
Non-continuing Contingency	n/a	n/a	-	-	n/a	n/a	(100.0)
Other Accounts	-	-	-	-	-	-	9.1
Total General Expense	-	-	-	-	24.9	(0.2)	(3.5)
Transfer Accounts:							
Capital Transfers	-	n/a	n/a	-	(25.0)	n/a	n/a
Furnishings	-	n/a	n/a	-	-	n/a	n/a
Other Accounts	-	n/a	n/a	-	10.0	n/a	n/a
Recurring Transfers	n/a	-	n/a	-	n/a	0	n/a
Appropriations	n/a	-	n/a	-	n/a	(39.8)	n/a
Alberta International	n/a	-	n/a	-	n/a	-	n/a
Total Transfers	-	-	n/a	-	(22.8)	(37.0)	n/a
TOTAL BASIC OPERATING	(5.5)	f/u	(2.7)	f/u	(2.3)	(4.3)	(2.7)
Capital Programs	n/a	n/a	-	-	n/a	n/a	-
Special Initiatives:							
Early Retirement Incentive	n/a	n/a	-	-	n/a	n/a	(19.7)
Faculty Renewal	n/a	n/a	-	-	n/a	n/a	377.4
University Systems Development	n/a	n/a	-	-	n/a	n/a	(34.5)
Campaign	n/a	n/a	-	-	n/a	n/a	-
Innovations in Instruction	n/a	n/a	-	-	n/a	n/a	53.2
Learning Enhancement	n/a	n/a	-	-	n/a	n/a	-
Research Excellence	n/a	n/a	-	-	n/a	n/a	-
Infrastructure Renewal	n/a	n/a	-	-	n/a	n/a	-
Total Special Initiatives	n/a	n/a	-	-	n/a	n/a	191.7
TOTAL			(2.7)	f/u			6.3

Note: * The percentage reductions in each of the three years were applied to the same base, which was the 1995 base budget before reductions.

** The Total Operating Budget includes the base budget plus any budgeted supplementary funding, such as new base allocations and "soft" or one-time funding for specific purposes.

The source of these figures is University of Alberta (1994f; 1995c; 1996e). F/u denotes figures that are unavailable in the sources. Due to changes in accounting procedures from year to year, certain cost centres and sub-units do not appear consistently. These are denoted by n/a.

purposes. Like base funding, supplementary funding was allocated selectively. For academic units, generally it was linked to enrolment, with soft funding allocated to high-enrolment units to ease enrolment pressures and new base allocations provided to meet enrolment targets (University of Alberta, Appendix A, 1994f; 1995c; 1996e). For non-academic units, supplementary funding was allocated on the basis of institutional priorities, special initiatives arising from *Degrees of Freedom*, and specific unit needs (University of Alberta, Appendix A, 1994f; 1995c; 1996e). Column B of Table 6.3 shows the combined effect of the base budget reductions and changes in levels of supplementary funding on annual budgeted operating resources by cost centre and sub-unit.

When the base budget reductions were planned in early 1994, it was expected that the bulk of the reductions would be realized through reductions in staff costs and, in particular, through reductions in continuing academic staff salaries, which was by far the largest single expenditure category in the operating budget (University of Alberta, 1994f, p. 17) and one that had been protected in retrenchment measures of the past. As a result, many faculties were required to close vacant academic positions even though student enrolment was not decreasing, and "enrolment maintenance" funding was allocated on a temporary basis to hire sessional instructors (University of Alberta, 1994f, pp. 10, 17). Additionally, a state of financial exigency was declared for the 1994-95 and 1995-96 fiscal years for purposes of the Administrative Professional Officer (APO) agreement, which permitted units to pursue APO layoffs as a means of meeting their budget reduction targets. Finally, in February of 1994, the Board of Governors approved the introduction of voluntary early retirement incentive programs (VERIPs) for both academic and non-academic staff (University of Alberta, 1994f, p. 2), which provided financial incentives for staff to retire prior to their normal retirement dates.

The specific intent of the VERIPs was "to reduce staff complement in those areas which are targeted for particularly large budget reductions" (University of

Alberta, 1994g, p. 1), and the programs were viewed as more humane alternatives to direct staff layoffs (University of Alberta, 1994f, p. 10). With regard to academic staff, the unit-level budgetary implications of the VERIPs were such that if a Dean or Director planned to eliminate the position of a retiring staff member, central administration would pay the total cost of the incentive payment from a \$4.9 million pool of funds established from reserves and a funding stream built from captured turnover savings (which ran a deficit until the 1997-98 fiscal year), and the unit would receive a credit toward their required base budget reductions based on the mid-point of the salary range of the position eliminated (University of Alberta, 1994g, p. 2; 1995c, Appendix A). Alternatively, if a Dean or Director did not plan to eliminate the position of a retiring staff member, the unit would pay the cost of the incentive payment either through not filling the vacancy until the incentive was paid out, or through the use of soft funds for the incentive payment, in which case the unit could fill the vacancy immediately (University of Alberta, 1994g, p. 2). In 1995-96, the VERIPs were closed with retirements under the plans permitted to occur as late as 1996-97 (University of Alberta, 1995c, p. 18).

At the same time the VERIPs were closed, the Faculty Renewal Early Retirement Incentive Program (FRERIP) was introduced "to generate significant numbers of early retirements enabling the appointment of highly qualified new faculty members" (University of Alberta, 1995e, p. 1). The FRERIP was different from the VERIPs in that the purpose of the program was not to eliminate positions vacated by early retirement, but to retain the positions and fill them with "outstanding" junior faculty (University of Alberta, 1995f p. 2; 1996f, pp. 1, 5). Through the FRERIP the university intended to establish a foundation for future excellence in teaching and research, which were goals set out in *Degrees of Freedom* (see Appendix F), and to move from a relatively senior professoriate to a more junior one in order to generate turnover savings for alternative use (University of Alberta, 1995f, pp. 1-2; 1996f, pp. 1, 8). The program was expected to double the turnover rate from 4% to 8% per year for five years, for a cumulative turnover of 40% (University of Alberta, 1995d, p. 4).

As with the VERIPs, the vacant positions of retiring staff members under FRERIP could not be filled until the unit paid out the cost of the incentive payment (University of Alberta, 1995f, p. 3). To assist in the interim, soft funding was made available for replacement teaching, the existing FLEX policy, which allowed carry forwards of up to 3% of a unit's operating budget or \$20,000, whichever was greater, was suspended to permit faculties and departments to carry forward all unspent funds from one year to the next, and the units were given the turnover savings for every affected position up to the date that the retiring faculty member turned 60 (University of Alberta, 1995c, p. 7; 1995f, p.3).

On the whole, the three-year planned base budget reductions of 12.5% for academic units and 15.5% for non-academic units were projected to pare annual institutional operating expenditures by approximately \$32 million—\$13 million in 1994-95, a further \$12 million in 1995-96, and a final \$7 million in 1996-97 (University of Alberta, 1994f; 1995c;1996e). However, as discussed previously, reductions of almost \$40 million over three years were required to maintain a balanced budget. Consequently, in addition to base budget reductions, the university chose to pursue the "5% wage rollback initiative" (see Chapter 5) posited by the Minister of Advanced Education and Career Development when the provincial grant reductions were announced.

Salary cuts. An across-the-board cut in salaries was chosen as an alternative to larger base budget reductions to avoid the widespread staff layoff and position closure that would have been necessary had harsher budget reductions been imposed (University of Alberta, 1994f, p. 10). In early 1994, negotiations for compensation reductions were opened with both the Association of Academic Staff: University of Alberta (AASUA) and the Non-Academic Staff Association (NASA) with a view to reducing annual compensation costs by approximately \$11 million (University of Alberta, 1994 f, p. 10; 1995c, p. 3). Agreements were reached with AASUA and NASA on July 1, 1994 and October 1, 1994 respectively that saw total annual compensation costs reduced by 5% during 1994-95 and kept at that level for the

succeeding two years, in accordance with the university's three-year expenditure reduction plan (University of Alberta, 1995c, p. 3). To achieve the 5% total compensation reduction, salaries were reduced by 5.66% for academic staff and 5.37% for non-academic staff, and a cap was placed on the costs of employee benefit packages (AASUA, 1996, p. 1; University of Alberta, 1994h, pp. 10). Consistent with the Minister's directive to renegotiate collective agreements to allow institutional boards to adjust academic staffing for reasons of fiscal stringency and redundancy (see Chapter 5), the new AASUA agreement included two clauses, Article 32, Academic Reorganization and Article 33, Financial Emergency, which provided for the layoff of academic staff under certain conditions (AASUA, 1998).

Outcomes. In short, the estimated \$39.1 million total reduction in annual operating expenditures required to absorb the cuts in provincial operating grants was achieved through the combination of selective base budget cuts and across-the-board cuts in salaries. Units were expected to realize the bulk of the base budget reductions through reductions in staff costs or, put another way, through reductions in the number of their staff, primarily through layoffs and early retirement incentives. The changes in the number of FTE operating staff at the university between 1993-94 and 1996-97 as the result of these two policies and the normal process of attrition are presented in Table 6.4. As illustrated, the total number of operating staff was reduced by 11% over the three-year period, and more specifically, this reduction was achieved at the expense of continuing academic and continuing support staff, whose numbers fell by 13.8% and 20.4% respectively. The savings realized in salary expenditures as a consequence of this staff reduction are presented in Table 6.5. In total, annual expenditures on salaries fell by \$25.4 million or 10.2% over the three-year term, with the faculties or academic units contributing \$20.5 million to that total. Further, as shown in Table 6.6, total reductions in salary expenditures not only accounted for, but exceeded, total reductions in net operating expenditures by more than half. In other words, more than half of the funds formerly expended on salaries were reallocated to non-salary expenditures.

Table 6.4
University of Alberta Full-time Equivalent (FTE) Operating Staff, 1993-94 to 1996-97*

Type of Staff	Number of FTE Staff				Total Difference	
	1993-94	1994-95	1995-96	1996-97	Number	Percent
Academic:						
Continuing Academic	1,935.0	1,856.1	1,768.3	1,668.3	(266.7)	(13.8)
Temporary Academic	403.4	369.5	449.5	503.2	99.8	24.7
Total Academic	2,338.4	2,225.5	2,217.8	2,171.5	(166.9)	(7.1)
Academic Assistants	447.4	403.8	426.5	494.7	47.3	10.6
Support Staff:						
Continuing & Recurring Term	2,562.7	2,267.8	2,139.9	2,040.9	(521.8)	(20.4)
Temporary	507.6	428.9	532.5	507.5	(0.0)	0.0
Total Support Staff	3,070.3	2,696.7	2,672.4	2,548.5	(521.8)	(17.0)
TOTAL OPERATING STAFF	5,856.1	5,326.0	5,316.7	5,214.6	(641.5)	(11.0)

Note: * As of October for 1993-94, 1995-96, and 1996-97. As of December for 1994-95.
 The source of numbers of FTE operating staff is University of Alberta (1997f). Differences were calculated by the researcher.

Table 6.5
University of Alberta Net Operating Expenditures on Salaries (in Thousands of Dollars) for the Years Ended March 31, 1994-97

Type of Unit	Amount				Total Difference	
	1994	1995	1996	1997	Amount	Percent
Faculties	188,393	175,457	169,730	167,816	(20,577)	(10.9)
Support & Administration	60,965	58,372	54,722	56,117	(4,848)	(8.0)
TOTAL	249,358	233,829	224,452	223,933	(25,425)	(10.2)

Note: The source of amounts is University of Alberta (1997f). Differences were calculated by the researcher.

Table 6.6
University of Alberta Total Net Operating Expenditures Excluding Conditional Grants Compared to Net Operating Expenditures on Salaries (in Thousands of Dollars) for the Years Ended March 31, 1994-97

Type of Unit	Amount				Difference			
	1994	1995	1996	1997	94-95	95-96	96-97	Total
Faculties:								
Total net	215,684	203,966	200,461	198,302	(11,718)	(3,505)	(2,159)	(17,382)
Salaries net	188,393	175,457	169,730	167,816	(12,936)	(5,727)	(1,914)	(20,577)
Support & Administration:								
Total net	104,790	113,281	105,770	109,546	8,491	(7,511)	3,776	4,756
Salaries net	60,965	58,372	54,722	56,117	(2,593)	(3,650)	1,395	(4,848)
Total University:								
Total net	320,474	317,247	306,232	307,848	(3,227)	(11,015)	1,616	(12,626)
Salaries net	249,358	233,829	224,452	223,933	(15,529)	(9,377)	(519)	(25,425)

Note: This table is based on information presented in Tables 6.5 and 6.7.

A breakdown of net operating expenditures by macro-unit—that is, faculties and administrative and support departments—is contained in Table 6.7. For purposes of clarification, a breakdown by micro-unit—academic departments and administrative and support offices—is provided in Appendix H. Table 6.7 shows that net annual operating expenditures at the university fell by \$12.6 million—from \$320.4 million to \$307.8 million—between 1994 and 1997. The table also suggests that this reduction was achieved at the expense of the downsizing of the faculties, whose annual net operating expenditures had dropped by \$17.4 million by the end of the three-year period, while those of the administrative and support units had risen by \$4.7 million. This suggestion, however, is discounted in Appendix H, which shows that the increases in administrative and support unit spending were not because most of those units did not downsize their operations, but were primarily the result of transfers to the capital fund, expenses for utilities which could not be decreased,

Table 6.7
University of Alberta Net Operating Expenditures Excluding Conditional
Grants (in Thousands of Dollars) for the Years Ended March 31, 1994-97

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
FACULTIES:								
Agriculture, Forestry & Home Ec.	15,460	13,417	13,024	12,560	(13.2)	(2.9)	(3.6)	(18.8)
Arts	43,995	42,171	40,539	40,922	(4.1)	(3.9)	0.9	(7.0)
Business	9,231	8,739	8,693	9,168	(5.3)	(0.5)	5.5	(0.7)
Dentistry	7,256	6,703	5,822	663	(7.6)	(13.1)	(88.6)	(90.9)
Education	21,416	19,701	17,936	17,096	(8.0)	(9.0)	(4.7)	(20.2)
Engineering	17,846	16,880	17,102	17,116	(5.4)	1.3	0.1	(4.1)
Graduate Studies & Research	4,141	4,438	4,633	4,605	7.2	4.4	(0.6)	11.2
Interdisciplinary Research Units	1,500	1,414	1,639	1,095	(5.7)	15.9	(33.2)	(27.0)
Law	3,187	3,089	3,081	2,838	(3.1)	(0.3)	(7.9)	(11.0)
Medicine (& Oral Health Sciences as of April 1996)	24,305	22,031	22,878	28,320	(9.4)	3.8	23.8	16.5
School of Native Studies	436	442	439	458	1.4	(0.7)	4.3	5.0
Nursing	4,880	4,927	3,433	4,308	1.0	(30.3)	25.5	(11.7)
Pharmacy & Pharmaceutical Science	2,791	2,804	2,590	2,796	0.5	(7.6)	8.0	0.2
Physical Ed. & Recreation Admin.	6,632	5,664	5,104	4,338	(14.6)	(9.9)	(15.0)	(34.6)
Rehabilitation Medicine	3,776	3,572	3,668	3,708	(5.4)	2.7	1.1	(1.8)
Faculte Saint-Jean	2,588	2,485	2,349	2,814	(4.0)	(5.5)	19.8	8.7
Science	45,916	45,142	46,420	44,563	(1.7)	2.8	(4.0)	(2.9)
Special Sessions	(632)	(939)	(934)	(872)	48.6	(0.5)	(6.6)	38.0
Undistributed Staff Benefits	960	1,286	2,045	1,811	34.0	59.0	(11.4)	88.6
TOTAL FACULTIES	215,684	203,966	200,461	198,302	(5.4)	(1.7)	(1.1)	(8.1)
ADMINISTRATION & SUPPORT:								
Faculty Support	16,710	25,367	16,611	18,928	51.8	(34.5)	13.9	13.3
Library	22,210	22,083	22,902	22,858	(0.6)	3.7	(0.2)	2.9
Student Services	2,507	2,424	2,534	2,732	(3.3)	4.5	7.8	9.0
Public Services	2,532	2,156	2,501	2,798	(14.8)	16.0	11.9	10.5
Physical Plant/Campus Support	22,539	21,897	20,266	19,815	(2.8)	(7.4)	(2.2)	(12.1)
Utilities	13,799	14,433	14,555	14,644	4.6	0.8	0.6	6.1
Administration	24,493	24,921	26,401	27,771	1.7	5.9	5.2	13.4
TOTAL ADMIN. & SUPPORT	104,790	113,281	105,770	109,546	8.1	(6.6)	3.6	4.5
TOTAL UNIVERSITY	320,474	317,247	306,232	307,848	(1.0)	(3.5)	(0.5)	(3.9)

Note: * Until 1996, unit expenditures on equipment were evaluated by central administration and paid for out of a separate capital account. Beginning in 1996, however, responsibility for equipment acquisition was turned over to the units and approximately \$4.5 million per year was embedded into the base operating budget to provide for this purpose. The above figures are actual expenditures from operating, not budgeted allocations. Amounts are from University of Alberta (1994d; 1995a; 1996a; 1997f), with adjustments as explained in the notes to Appendix H. Percentage differences were calculated by the researcher.

expenditures associated with the implementation of the new computing systems discussed earlier in this chapter, allocations to key initiatives such as library acquisitions, as well as the reallocation of funding to support the revenue-generating strategic initiatives discussed in the next section.

With regard to the faculties, Table 6.7 shows a reduction of 8.1% or \$17.4 million in annual net operating expenditures between 1994 and 1997. The table also indicates how the individual faculties fared in relation to the 8.1% average. Faculties in which net expenditures fell by much higher rates than average include Dentistry at 90.9% and Physical Education at 34.6% (which are special cases explained further in the next paragraph), the Interdisciplinary Research Units at 27.0%, Education at 20.2%, Agriculture, Forestry and Home Economics at 18.8%, Nursing at 11.7%, and Law at 11.0%. Those that fell below the average include Arts at 7.0%, Engineering at 4.1%, Science at 2.9%, Rehabilitation Medicine at 1.8%, and Business at 0.7%. Annual net operating expenditures in several of the faculties—Graduate Studies and Research, Medicine, the School of Native Studies, Pharmacy and Pharmaceutical Sciences, and Faculté Saint-Jean—actually increased over 1994 levels.

As previously discussed, the financial figures of the individual faculties must be considered within the context of individual circumstances, and in particular, the outcomes of the *Quality First* restructuring. For instance, Dentistry shows a 90.9% drop in net expenditures because it was merged with the Faculty of Medicine in April 1996, and hence, the 23.8% increase in Medicine's expenditures between 1996 and 1997 (see Appendix G). Also, part of the large drop in Physical Education's net expenditures was due to its Department of Athletic Services becoming a cost-recovery unit in May 1994 by moving athletic fees from central revenue to the department, and to the faculty's non-departmentalization in January 1995 (see Appendix G). Nursing was extraordinary as the result of a \$3.5 million annual conditional grant, which is not recorded in the operating figures. As for the Faculties of Agriculture and Science, it should be noted that the Department of Entomology, with an operating budget of approximately \$1 million, was moved from Agriculture to Science in July 1994 (see

Appendix G). Finally, the large increase in the net expenditures of Graduate Studies and Research was primarily due to increased spending on student scholarships and fellowships, which was related to the enhanced student recruitment efforts described in the next section. Most of these financial nuances are reflected in Appendix H, which shows annual net operating expenditures from a micro-institutional perspective.

Revenue Generation

As noted earlier in this chapter, when the provincial grant reductions were announced in 1994, Glenn Harris, the VP (Finance & Administration), had stated that in addition to a three-year expenditure reduction plan, the U of A planned to undertake all reasonable steps to increase revenue. According to the institution's 1994 *Business Plan*, these steps were to include higher tuition fees, increased grantsmanship, a major fundraising campaign, and more entrepreneurial activities (University of Alberta, 1994h, p. 6). In the following sub-sections, specific activities within each of these categories and their outcomes are described.

Higher tuition fees. Next to committing to a program of base budget and salary cuts, the U of A's most immediate response to the announcement of the provincial grant reductions was to declare its intention to increase tuition fees to the maximum rate allowed by AECD in any given fiscal year, and further, to lobby for the removal of the tuition cap altogether (University of Alberta, 1994h, pp. 6, 12). Such an aggressive stance toward tuition fees was taken because fees were one of the university's few major sources of unrestricted revenue—that is, money that could be spent on general operating costs—and thus could compensate for the lost provincial operating revenue. Although a major fundraising campaign and more entrepreneurial activities were also planned, it was recognized that the majority of those funds would be restricted and therefore would contribute little to the operating budget (University of Alberta, 1994f, p. 9). Consistent with declared intention, tuition fees at the U of A were raised by 11.85% in 1994-95, a further 10.97% in 1995-96, and another 10.29%

in 1996-97—the maximum amount allowed under the tuition fee policy in each of the three years (University of Alberta, 1994f, Appendix B; 1995c, p.11; 1996e, p. 1).

Related to the issue of revenue generation through tuition fees, were the university's efforts to maintain and boost enrolments following the introduction of the new provincial funding structure in 1994. As explained in Chapter 5, commensurate with the grant reductions policy was the implementation of an enrolment corridor policy that would penalize the major urban institutions by \$1,500 per FTE student below 98% of 1993-94 enrolment levels. In the case of the U of A, 1993-94 had been a record year for enrolment, and in 1994-95 and again in 1995-96 enrolment dipped below the acceptable corridor, resulting in the imposition of an enrolment corridor penalty of \$306,717 (see Table 6.1), as well as shortfalls in projected revenue from tuition fees (University of Alberta, 1994f, 1995c, 1996e). Consequently, in 1995-96 enrolment targets were developed and recruiting efforts, scholarship resources, and alternative methods of instructional delivery were enhanced in order to increase enrolment and attract the best students possible, which were key strategic initiatives identified in *Degrees of Freedom* (University of Alberta, 1995d, p. 3; 1996f, p. 3). Funded through internal resource reallocation, these key initiatives resulted in 1996-97 enrolments returning to the 1993-94 level and a continued commitment to student recruitment efforts and innovations in instruction (University of Alberta, 1996f, p. 4; 1997g, pp. 5-7).

Grantsmanship and fundraising. As discussed in Chapter 4, *Degrees of Freedom* had foreseen a decline in the level of provincial financial support for higher education and, as a result, suggested that the university would have to increase support from other sources. Specifically, the document recommended that the university increase private support through a major fundraising campaign within five years, and to increase its level of research funding from private organizations and granting agencies (see Recommendation 35, Appendix F). By the time the provincial grant reductions were confirmed in the February 1994 budget, each of these funding initiatives was already in the early-planning stage under the purview of the Office of

the VP (Research), which became the Office of the VP (Research and External Affairs) in 1995 as the result of administrative restructuring (see Appendix G).

The drive to increase levels of outside research funding began first. It was called *\$1 Billion by 2000*, and was launched at a media conference in June 1994 (University of Alberta, 1995g, p. 11). As indicated by its title, the goal of this initiative was to raise \$1 billion in external research funding by the year 2000, including funds in hand since 1989. In addition to increasing the U of A's share of federal government research funding from the three major granting councils (MRC, NSERC, and SSHRC) and its level of industry-funded research, *\$1 Billion by 2000* intended to identify and pursue non-traditional sources of research funding, such as philanthropic foundations and agencies, alumni, and other donors to the university (University of Alberta, 1996g, p. 10). The onus for generating greater external research funds was placed primarily on individual faculty members, with the Office of the VP (Research and External Affairs) generating information on the preparation of grant applications, sources of funding, and collaborative opportunities to assist faculty members in their efforts (University of Alberta, 1995g, p. 9; 1996g, p. 7; 1997g, p. 8).

The major fundraising campaign, simply called the *University of Alberta Campaign*, was implemented in two phases: internal and external. The internal first phase was launched in September 1996 with a view to raising \$1.8 million in endowment funds from faculty and staff for new programs and student recruitment (Robb, 1996). The more ambitious external phase was launched in April 1997 with the goal of raising \$144.7 million in endowments from local, national, and international sources by the year 2000, \$60.4 million of which would be earmarked for students, \$50 million for scholars, and \$34.3 million for facilities (University of Alberta, 1997h). Referred to in the local media as "a highly researched, fine-tuned effort," two prominent business executives and a former deputy prime minister were recruited in 1996 to co-chair the campaign and facilitate "leadership gifts" from key individuals and organizations to provide examples to the rest of the community (Ogle,

1998; Simons, 1996). By the time the campaign was officially launched in April 1997, approximately \$70 million had already been pledged or received (Robb, 1997).

Entrepreneurial activities. "Entrepreneurial activities" was the phrase the university itself used to describe its private sector revenue generating efforts outside of the measures discussed above (e.g., University of Alberta, 1995d, p. 5; 1996f, p. 1). Once again, most of these efforts fell under the umbrella of the Office of the VP (Research and External Affairs) and, in particular, that unit's Industry Liaison Office (ILO), which had been the Intellectual Properties and Contracts Office prior to 1995-96 (see Appendix G). The focus of the ILO was to facilitate "market-specific" technology and knowledge transfer activities (University of Alberta, 1995g, p. 11). More specifically, the ILO had two purposes. The first was to "promote more partnerships and licensing opportunities" for the university by increasing industry awareness of the its research facilities and expertise, and the second was to facilitate "technology commercialization" through the creation of spin-off companies from university research (University of Alberta, 1996g, p. 10). Its goal was to establish 50 such spin-off companies by the year 2000 (University of Alberta, 1996g, p. 10). In addition to the Edmonton-based ILO, the university opened the Southern Alberta Liaison Office (SALO) in Calgary in December 1996 to provide a direct link to the southern Alberta business community (University of Alberta, 1997g, p. 11).

Outcomes. In summary, the steps taken by the U of A to generate other revenue following the provincial grant reductions included raising annual tuition fees to the maximum rate allowed, boosting enrolments, increasing the levels of research funding from private organizations and granting agencies, undertaking a major international fundraising campaign, and establishing more research-related partnerships and businesses. The outcomes of these measures are contained in Table 6.2, which shows university revenue from all sources between 1994 and 1997. Originally presented near the beginning of this chapter, Table 6.2 is reprinted on the following page for ease of reference. As the bottom line suggests, the university was quite successful in generating revenue from other sources during the period of the

Type & Source of Revenue	Amount			Difference	
	1994	1995	1996	1995-96	1996-97
Unrestricted:					
Province of Alberta-AECD	360,361	239,666	222,529	(20,695)	(6,565)
Province of Alberta-other departments	2,518	106	93	(2,412)	(93)
Total Province of Alberta	262,879	239,772	222,622	(23,107)	(6,658)
Other government sources	141	214	159	73	(141)
Credit course tuition & fees	65,562	69,641	74,784	4,079	5,143
Donations and grants	303	407	621	104	214
Investment income-cash management	3,997	6,198	7,775	2,201	1,577
Endowment earnings	-	-	-	n/a	n/a
Sales of goods & services	25,080	23,845	23,431	(1,235)	(414)
Total Unrestricted	357,962	340,077	329,392	(17,885)	(10,685)
Internally Restricted:					
Province of Alberta-AECD	49	5	9	(44)	156
Province of Alberta-other departments	4,119	3,321	1,800	(798)	653
Total Province of Alberta	4,168	3,326	1,809	(842)	809
Other government sources	4,471	5,861	8,452	1,390	2,491
Credit course tuition & fees	-	-	-	n/a	n/a
Donations and grants	11,390	9,945	4,937	(1,445)	714
Investment income-cash management	1,785	1,994	570	209	(1,424)
Endowment earnings	2,142	3,026	4,250	884	1,224
Sales of goods & services	58,704	51,858	51,291	(6,846)	5,012
Total Internally Restricted	82,660	76,010	71,309	(6,650)	6,248
Externally Restricted:					
Province of Alberta-AECD	14,328	3,762	7,465	(10,566)	6,704
Province of Alberta-other departments	16,884	18,914	23,872	2,030	4,958
Total Province of Alberta	31,212	22,676	31,337	(8,536)	5,152
Other government sources	45,932	50,734	69,332	4,802	18,598
Credit course tuition & fees	-	-	-	n/a	n/a
Donations and grants	22,990	24,042	31,784	1,052	7,742
Investment income-cash management	-	4	-	4	(4)
Endowment earnings	11,114	10,340	9,152	(774)	(1,188)
Sales of goods & services	890	1,764	1,481	874	(2,606)
Total Externally Restricted	112,138	109,560	143,086	(2,578)	3,787
TOTAL REVENUE	552,760	525,647	543,787	(27,113)	9,717
					744

Note: Deferred contributions are not accounted for in these figures. This table is based on information provided in Schedule A, Financial Statements and Supplementary Schedules (University of Alberta, 1994c; 1995b; 1996d; 1997e) and Table 6.1.

Table 6.2
University of Alberta Revenue From All Sources (in Thousands of Dollars) for the Years Ended March 31, 1994-97

grant reductions, with total institutional revenue dropping by \$27.1 million in 1995, but recovering to the 1994 level of approximately \$553 million by 1997. As further indicated, the bulk of this recovery was directly related to the revenue-generating activities described above. Specifically, there was an \$18.7 million rise in annual tuition and fees revenue, which is shown in the unrestricted category, and a \$34.7 million increase in externally restricted revenue generated primarily from three sources: (a) provincial government departments other than AECD, (b) other government sources, and (c) donations and grants.

A consequence of this increased revenue from private sources, coupled with the concurrent decline in provincial operating grants, was a marked change in the basic composition of the university's revenue. As shown in Table 6.8, between 1994 and 1997, the ratio of unrestricted revenue to total revenue fell by 5.4%—from 64.8% to 59.4%—while that of restricted revenue rose by 6.3%—from 20.3% to 26.6%. In other words, despite the recovery of 1997 revenue to the 1994 level, only a portion of the funds recovered were of the type that could be used for general operating costs, and therefore did not compensate for the revenue lost through the provincial grant reductions. At the end of the three-year period, annual general operating revenue—that is, unrestricted revenue—at the university was still \$28.8 million or 8.1% below that of 1994, and further, the proportionate contribution by source of that kind of revenue had changed notably. In particular, AECD's contribution had dropped by 7.2%—from 72.8% to 65.6%—while that of tuition and fees had climbed by the corresponding amount of 7.3%—from 18.3% to 25.6%.

Summary and Discussion

The response of the University of Alberta to the changes in provincial funding policy since 1994 can be understood in terms of a calculated, integrated effort consisting of selective expenditure reduction, strategic resource reallocation, and private revenue generation, intended to adapt the institution to the reality of diminished levels of direct public support and to strengthen it academically over the

Type & Source of Revenue	1994			1995			1996			1997		
	Amount	% of Total Type	% of Total Revenue	Amount	% of Total Type	% of Total Revenue	Amount	% of Total Type	% of Total Revenue	Amount	% of Total Type	% of Total Revenue
Unrestricted:												
Province of Alberta-AECD	260,361	72.8	47.1	239,666	70.5	45.6	222,529	67.6	40.9	215,964	65.6	39.1
Province of Alberta-other depts.	2,318	0.7	0.5	106	0.0	0.0	93	0.0	0.0	-	n/a	n/a
Total Province of Alberta	262,679	73.5	47.6	239,772	70.5	45.6	222,622	67.6	40.9	215,964	65.6	39.1
Other government sources	141	0.0	0.0	214	0.1	0.0	159	0.0	0.0	18	0.0	0.0
Credit course tuition & fees	65,562	18.3	11.9	69,641	20.5	13.2	74,784	22.7	13.8	84,279	25.6	15.2
Donations and grants	303	0.1	0.1	407	0.1	0.1	621	0.2	0.1	735	0.2	0.1
Investment income-cash mgmt.	3,997	1.1	0.7	6,198	1.8	1.2	7,775	2.4	1.4	9,132	2.8	1.6
Endowment earnings	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a
Sales of goods & services	25,080	7.0	4.5	23,845	7.0	4.5	23,431	7.1	4.3	18,946	5.8	3.4
Total Unrestricted	357,962	100.0	64.8	340,077	100.0	64.7	329,392	100.0	60.6	329,074	100.0	59.4
Internally Restricted:												
Province of Alberta-AECD	49	0.1	0.0	5	0.0	0.0	9	0.0	0.0	165	0.2	0.0
Province of Alberta-other depts.	4,119	4.9	0.8	3,321	4.4	0.6	1,809	2.5	0.3	2,453	3.2	0.5
Total Province of Alberta	4,168	5.0	0.8	3,326	4.4	0.6	1,809	2.5	0.3	2,618	3.4	0.5
Other government sources	4,471	5.4	0.8	5,861	7.7	1.1	8,452	11.9	1.6	8,701	11.2	1.6
Credit course tuition & fees	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a
Donations and grants	11,390	13.8	2.1	9,945	13.1	1.9	4,937	6.9	0.9	5,651	7.3	1.0
Investment income-cash mgmt.	1,785	2.2	0.3	1,994	2.6	0.4	570	0.8	0.1	316	0.4	0.1
Endowment earnings	2,142	2.6	0.4	3,026	4.0	0.6	4,250	6.0	0.8	3,968	5.1	0.7
Sales of goods & services	58,704	71.0	10.6	51,858	68.2	9.9	51,291	71.9	9.4	56,303	72.6	10.2
Total Internally Restricted	82,660	100.0	14.9	76,010	100.0	14.5	71,309	100.0	13.1	77,557	100.0	14.0
Externally Restricted:												
Province of Alberta-AECD	14,328	12.8	2.6	3,762	3.4	0.7	7,465	5.2	1.4	14,169	9.6	2.6
Province of Alberta-other depts.	16,824	15.0	3.0	18,914	17.3	3.6	23,872	16.7	4.4	22,320	15.2	4.0
Total Province of Alberta	31,212	27.8	5.6	22,676	20.7	4.3	31,337	21.9	5.8	36,489	24.8	6.6
Other government sources	45,932	41.0	8.3	50,734	46.3	9.7	69,332	48.5	12.7	65,051	44.3	11.8
Credit course tuition & fees	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a	198	0.1	0.0
Donations and grants	22,990	20.5	4.2	24,042	21.9	4.6	31,784	22.2	5.8	35,857	24.4	6.5
Investment income-cash mgmt.	-	n/a	n/a	4	0.0	0.0	-	n/a	n/a	32	0.0	0.0
Endowment earnings	11,114	9.9	2.0	10,340	9.4	2.0	9,152	6.4	1.7	6,546	4.5	1.2
Sales of goods & services	890	0.8	0.2	1,764	1.6	0.3	1,481	1.0	0.3	2,700	1.9	0.5
Total Externally Restricted	112,138	100.0	20.3	109,560	100.0	20.8	143,086	100.0	26.3	146,873	100.0	26.6
TOTAL REVENUE	552,760	n/a	100.0	525,647	n/a	100.0	543,787	n/a	100.0	553,504	n/a	100.0

Note: Deferred contributions are not accounted for in these figures. This table is based on information provided in Schedule A, Financial Statements and Supplementary Schedules (University of Alberta, 1994e; 1995b; 1996d; 1997e) and Table 6.1.

Table 6.8
University of Alberta Type and Source of Revenue (in Thousands of Dollars) by Percentage of Total Type and Percentage of Total Revenue for the Years Ended March 31, 1994-97

longer term. This response was largely prescribed by the institution's strategic plan of 1993, *Degrees of Freedom*, which had anticipated the impending public financial climate and recommended that to maintain excellence in teaching and research, the university must increase its level of private financial support, as well as be selective in its allocation of resources.

In reducing expenditures between 1994 and 1997, the university adopted multiple strategies, including the extensive administrative and program restructuring resulting from *Quality First* that was discussed in Chapter 4, base operating budget cuts averaging 12.5% for academic units and 15.5% for non-academic units, and a 5% reduction in employee compensation for three years. With the exception of the compensation cuts, the strategies were structured to have a longitudinal impact on operating costs. Of central importance to the expenditure reduction program were the base budget cuts, which accounted for the majority of the required expenditure reductions, and were realized primarily through reductions in continuing academic and support staff as the result of attrition, layoff, and a series of aggressively pursued early retirement incentive programs.

In total over the three years, the number of continuing academic and support staff at the university dropped by 13.8% and 20.4% respectively. In the short-term, the loss of continuing academic staff was compensated for by an infusion of supplemental funding for the express purpose of hiring sessional instructors or temporary academic staff. The issue of faculty depletion in the longer-term was addressed through the introduction of the FRERIP in 1995-96, the second of the early retirement programs for academic staff, whose purpose was specifically to vacate positions held by senior faculty and fill them with "outstanding" junior faculty in order to build a foundation for future academic excellence, and to generate turnover savings for alternative use. Throughout the course of the three-year expenditure reduction program, no specific measures were implemented to address the loss of continuing support staff.

Selective budget treatment was exercised on the basis of enrolment, academic quality, and strength of overall strategy and plans for the academic units, and according to institutional priorities and key strategic initiatives for the non-academic units. As a result, the types of units and their sub-units contributed differentially to the expenditure reductions. In terms of percentage of base budget cut, the academic units received preference over non-academic units with their cuts averaging 3% less. However, because the total operating expenditures of the academic units were approximately double those of the non-academic units, and because the taxed funds from the non-academic units were internally reallocated, the academic units contributed more to the reductions in terms of actual dollar amount. At the end of the three-year expenditure reduction program, annual net operating expenditures in the academic units had fallen by \$17.4 million or 8.1%, while those in the non-academic units had risen by \$4.7 million or 4.5%.

Expenditures in the non-academic units rose because funds cut from their base budgets, as well as reserve funds, were reallocated to areas that were seen as crucial to future institutional vigour, such as capital maintenance, computing systems development, library acquisitions, and key strategic initiatives related to the development of private financial support. The following specific initiatives were undertaken to generate greater private support: (a) raising tuition fees to the maximum amount allowed by the province, with a corresponding emphasis on enrolment maintenance and growth through enhanced student recruitment activities and instructional innovation; (b) increasing grantsmanship within with the federal, industrial, and philanthropic spheres; (c) undertaking a major international fundraising campaign; and (d) establishing more research-related businesses and partnerships. As the result of these initiatives, institutional revenue recovered to the 1994 level by 1997, however, the majority of the revenue from these other sources was restricted, and thus did not yet alleviate the budgetary pressures created by the reductions in provincial operating grants.

CHAPTER 7

THE MICRO-INSTITUTIONAL IMPACT ON THE UNIVERSITY OF ALBERTA

This chapter presents the findings in relation to Specific Research Question 3: *How has the macro-institutional response of the University of Alberta affected the operations of academic departments from the perspective of department chairs?* To contextualize the comments and perspectives of the department chairs, the chapter begins with a selected review of information presented in other chapters. In the second section, profiles of the department chairs who participated in the study are provided. The effects of institutional retrenchment policies on departmental operations as perceived by the participating department chairs are described in the third section. To ensure the anonymity of the participants, each has been assigned the pseudonym of "Chair" coupled with a letter of the alphabet corresponding to the sequence in which the interviews occurred (e.g., Chair A, Chair B, Chair C), and potentially identifying characteristics have been either omitted or disguised. As a conclusion to the chapter, the findings are summarized and discussed in thematic form.

Review

The University of Alberta had been in a state of retrenchment for more than a decade prior to AECD's announcement in 1994 that it intended to reduce institutional operating grants by 11%, 7%, and 3% respectively for the next three years, and to restructure the administration of the postsecondary system to achieve greater accessibility, responsiveness, affordability, and accountability. Budgetary problems were acknowledged by the university's central administration more than a decade earlier in 1983, and had been responded to over the years with a two-pronged strategy of uniform and selective budget cuts. The principle of selectivity was endorsed in the institution's strategic plan, *Degrees of Freedom*, and the selective cuts were achieved

through two major restructuring initiatives, *Maintaining Excellence* in 1991 and *Quality First* in 1994, which targeted specific programs and units for either reorganization, reduction, or termination.

By the time AECD began implementation of its retrenchment and restructuring plans in the 1994-95 fiscal year, operations at the U of A had already been significantly downsized. Since 1983, the base budgets of academic and non-academic units had shrunk by approximately 18% and 21% respectively (see Table 4.4, Chapter 4); low demand, high cost, or duplicated programs and units had been either closed, downsized or reorganized (see Appendix G); one vice-presidency had been eliminated (see Appendix G); two faculties had been closed and discussions were underway to close a third (see Appendix G); plans were in place to reduce the number of academic departments from 86 to 61 (see Appendix G); and the number of support staff had been decreased by almost 23% since 1990. Consequently, AECD's decision to reduce institutional operating grants by almost 20% between 1994 and 1997 exacerbated an already tight financial situation at the U of A.

Between 1994 and 1997, the institution responded to AECD's policies by pursuing three primary strategies—selective expenditure reduction, strategic resource reallocation, and private revenue generation—that were intended to adapt the institution to the reality of diminished levels of direct public financial support and to strengthen it academically in the longer term. To reduce expenditures, the university adopted several measures, including the restructuring stemming from *Quality First* mentioned above, cuts of 12.5% and 15.5% respectively to the base operating budgets of academic and non-academic units, and a three-year 5% reduction in employee compensation. The base budget cuts accounted for the bulk of the expenditure reductions, and were realized mainly through reductions in continuing academic and support staff through attrition, layoff, and a series of aggressively pursued early voluntary retirement incentive programs (VERIPs). In total over the three years, the number of continuing academic and support staff at the university dropped by 13.8% and 20.4%, respectively. The issue of faculty depletion was addressed through the

introduction of the FRERIP in 1995-96, the second of the early retirement programs for academic staff, whose purpose was specifically to replace senior faculty members with junior ones. No specific measures were implemented to address the loss of continuing support staff.

Selective budget treatment was exercised on the basis of enrolment, academic quality, and strength of overall strategy and plans for the academic units, and according to institutional priorities and key strategic initiatives for the non-academic units. As a result, the types of units and their sub-units contributed differentially to the expenditure reductions (see Appendix H). In terms of percentage of base budget cut, the academic units received preference over non-academic units with their cuts averaging 3% less. However, because the total operating expenditures of the academic units were approximately double those of the non-academic units, and because the taxed funds from the non-academic units were internally reallocated, the academic units contributed more to the reductions in terms of actual dollar amount. At the end of the three-year expenditure reduction program, annual net operating expenditures in the academic units had fallen by \$17.4 million or 8.1%, while those in the non-academic units had risen by \$4.7 million or 4.5%.

Expenditures in the non-academic units rose because funds cut from their base budgets, as well as reserve funds, were reallocated to capital maintenance, computing systems development, and strategic initiatives related to the development of private financial support. The following specific initiatives were undertaken to generate greater private support: (a) raising tuition fees to the maximum amount allowed by the province, with a corresponding emphasis on enrolment maintenance and growth through enhanced student recruitment activities and instructional innovation; (b) increasing grantsmanship within with the federal, industrial, and philanthropic spheres; (c) undertaking a major international fundraising campaign; and (d) establishing more research-related businesses and partnerships. By 1997, these initiatives had resulted in total institutional revenue recovering to the 1994 level. However, since the majority of the new revenue was for restricted uses, it did not

compensate for the general operating revenue lost through the provincial grant reductions.

Participant Profiles

This section presents the disciplinary backgrounds and administrative and academic experience of the 14 department chairs who participated in this study. To prevent identification of the participants, each characteristic is presented separately in a table and by frequency of distribution in an aggregated form. Table 7.1 shows that the participants represented seven of the 13 teaching faculties at the U of A. Eleven of the participants were from the university's four largest faculties—Arts, Education, Medicine, and Science—and the remaining three participants were from three other unidentified faculties. Seven of the participants represented departments that were restructured in some way between 1991 and 1997. Table 7.2 indicates that the experience of the participants as department chair varied, with nine of the participants serving as chair from 1-4 years, one participant from 4-8 years, and four participants for nine or more years. The experience of the participants as faculty members in their departments was broad. As shown in Table 7.3, no participant had been a faculty member for less than ten years, three had been on faculty for 10-15 years, nine for 16-30 years, and two for 31-35 years. This characteristic is particularly relevant to the study as it indicates that all of the participants have the length of experience necessary to attest to the impact that retrenchment has had on operations in their departments. All of the participants had been on faculty in their departments for at least seven years prior to the introduction of the provincial retrenchment policies in 1994, and the majority had been on staff long enough to have experienced the earlier retrenchment and pre-retrenchment periods the institution underwent.

Table 7.1
Distribution of Department Chairs by Faculty (n=14)

Faculty	f
Arts	3
Education	2
Medicine	2
Science	4
Other	3

Note: The "Other" category includes three separate faculties.

Table 7.2
Distribution of Department Chairs by Length of Time as Department Chair (n=14)

Number of Years as Department Chair	f
1-4	9
5-8	1
9-13	4

Note: The number of years as department chair are in total and not always consecutive.

Table 7.3
Distribution of Department Chairs by Length of Time as Faculty Members in Their Departments (n=14)

Number of Years as Faculty Member	f
10-15	3
16-20	2
21-25	1
26-30	6
31-35	2

Micro-Institutional Impacts

Despite the presence of an interview guide outlining various aspects of departmental operations for potential discussion (see Appendix C), the interviews tended to focus on two broad categories that were aptly described by one participant as "the human resource factor, and how you deal with it," and "hardware, infrastructure, and that sort of thing." In the lexicon of the management literature, these categories would more succinctly be labelled "human resources" and "material resources," and in the following sub-sections, the comments and perspectives of the department chairs are presented within the context of these two categories.

Human Resources

The "human resource factor" noted above referred to losses in the number of full-time, continuing staff and, consistent with the findings presented in Chapter 6, this factor was identified by the participants as the single most important impact of retrenchment on departmental operations. In almost every interview, it was stressed that in academic departments, where approximately 90% of the operating budget is spent on staff salaries and benefits, budget cutting very simply involved cutting staff. "We don't have a large amount of money for operating outside of salaries for support staff . . . for academic staff," explained Chair M, "[so] basically, its people, that's where we've lost it . . . we've trimmed back other things in the operating budget, but those reductions have been minimal because there wasn't a lot there to begin with." And that was the bottom line or "real factor," according to Chair H, "How many faculty do you have? How many graduate assistants can you hire? What is your non-academic staff?" The number of staff was so important, said Chair M, because "our enrolments have not gone down . . . we're carrying the same enrolments roughly in graduate [and] high enrolments in undergraduate with far less budget [and] far fewer people." In the following sub-sections, the impact that high enrolments, less budget, and fewer people had on departmental operations and the work of administrative, support, and academic staff are described.

Administrative and support staff. All of the participants reported major reductions in the number of support staff positions in their departments, advising that "the clerical and technical staff bore the brunt of the cuts" or were "the hardest hit." There were, however, noticeable differences in the impact of these cuts by discipline, stemming from the fact that departments within the hard sciences had greater external resources to draw upon, or "siphon money off" as one chair put it, for clerical and technical support than did departments in the humanities and social sciences. Siphoning-off occurred in various ways. In some cases, external grant programs included funding specifically for technical staff who then provided service not only for the particular program, but the department in general. In other cases, as this chair pointed out, research overhead funds were used to pay for clerical support for the entire department: "our lady up at the front desk, she's paid for from research overhead funds, she's from temp services, that's how we're handling this [the cuts in support staff] for now." "Those who are successful in bringing in larger external sources," explained another chair, "can compensate [for the cuts] by hiring additional secretarial support and additional technician support, so they become little separate sub-companies, if you will, within the overall department." Finally, in some departments, like this one, the costs of support staff were "shared" or partially recovered through charge backs to the research funds of individual faculty members:

We've had to completely restructure our whole operation. We actually have . . . a charge back scheme, or shared expense as we call it . . . we've restructured the whole thing, pooled the resources, and the [support] people are available in a semi-competitive way in that the researchers have to have their outside funds to pay for part of it. So, we're trying to recover a little bit of [budgetary] flexibility that way.

In contrast, departments in the humanities and social sciences were less able to mitigate the impact of losses in support staff positions because they had fewer external resources to draw upon. "People in the sciences, engineering, [and] medicine," explained one chair, "are able to tap into NSERC [Natural Sciences and Engineering Research Council] funding . . . and other resources that are vastly greater

than [for] people in the humanities and social sciences, and the proportion of people who can get grants in those areas is much greater. This is well-established." Most of these department chairs reported that their losses in support staff tended to be terminal, with little, if any, casual relief, as this chair's comments illustrate:

What is most dramatic for me on this is if you look at the non-academic staff, we have lost 2.5 positions. They're just not going to be replaced . . . and the casuals, we don't have the [financial] flexibility anymore of bringing someone in for three months in the summer to, you know, promote a certain project or initiative in the department . . . so our casual has completely disappeared in the [budget] line. So, these are very dramatic realities that we have to deal with every day.

Several chairs, such as this one, advised that they were now forced to rely on the benevolence of their Deans through soft funding to run their offices: "So now . . . in terms of the support staff, the functioning of the office, we're operating almost completely on soft funding at the mercy of the Dean annually." The precariousness of this situation to general departmental operations was indicated by another participant who remarked:

This year, even though there's stability in the hard funding . . . the soft funding has been cut. With all the hard funding cuts in the past few years, our office runs on soft funding, so we're really worried about what the impact will be. And that funding has also helped us provide extra sections and courses that will fund graduate students. That's all going to be gone. And that hurts!

Disciplinary financial differences aside, all of the department chairs interviewed felt that their current levels of support staff were inadequate, with descriptions ranging from "none left, virtually" to "scant" or "sparse" to being at "critical mass" or "at the limit." The chairs of several large departments referred to their levels of support staff as "ludicrous" and "absurd," with one chair pointing out that his department was analogous to "a \$9 or \$10 million company operating with two or three secretaries." In some departments there were no receptionists and in others, the chairs themselves no longer had secretaries. What the whole issue of fewer support staff boiled down to, stated Chair M, is that "we provide less service to

professorial staff" which, in turn, expounded Chair H, "has led to . . . significant inefficiencies in [the use of] time."

Most of the department chairs interviewed emphasized this same point, explaining that the inefficiencies occurred in either of two ways. One was through increased waiting time for service provision, and the other was through what Chair J described as "the slack being taken up by colleagues doing most of their own work." Slack-taking-up applied to both technical and clerical services. Several chairs admitted, as Chair E did, that "we actually make use of a faculty member for our computer technical support." Chair K's comments regarding the transfer of duties from clerical staff to academic staff were typical of those of many of the participants:

We lost a position . . . before the merger, and then after the merger we lost another position, and the result is that we are now running a merged department with fewer people than we used to have to run the single department. And the only way that works is because faculty are taking on more and more of the secretarial duties themselves. They do their own work on their own computers and are relying less and less on secretarial support to do that for them, and various other tasks too, photocopying and the like. So, I think one of the things that I see is a transfer of duties from support staff to academic staff, and I'm not sure that's a great efficiency.

Chair H agreed. He felt that as a result of this transfer of duties, academic staff were "just less productive." "How many times do you [a faculty member] have to answer the phone in a day for somebody else before it doesn't pay?" he asked, then responded, "It's about 20 seconds is all . . . and so, you know, to some extent much of the cutbacks have saved dollars, but they're not saving resources. In fact, they're probably costing us." Chair N concurred, describing how the lack of adequate technical support and the consequent pressures it placed on faculty members' time ultimately cost his department in terms of effective undergraduate teaching:

I know some faculty are really getting swamped by not only the teaching, but developing experiments, trying to do a demonstration for their 200 people in Class A, and they'd like to do more. They're popular with the students and effective. But you only have so much time . . . the major schools in the U.S. . . . tend to have a full-time demonstrator for Class A. When the prof wants to put on this particular demo, he contacts the person and says . . . "Set up this

demo and do it at 10:00 am on Monday, please." And so . . . that would really help . . . to have, what I call, technical support of teaching.

At the same time that academic staff were seen to have assumed more of the duties of departmental support staff, the workloads of support staff were also perceived to have increased. Chair F spoke for many of the department chairs when he advised that, "The ones [support staff] we have right now are overworked . . . and they're putting in too long of hours to get the jobs done." The increased workload was attributed to three main factors. The first was simply the dramatic reduction in the actual number or head count of support staff in each department (see Chapter 6). As pointed out earlier, enrolments had not declined significantly since 1994, and therefore the need for related support services had not waned. The second factor was what Chair J referred to as a return to "more archaic forms of labour intensive activity" as a consequence of the budget cuts. He explained that although he had not had to cut his whole telephone budget, the cuts had necessitated the sharing of all telephone lines in the department. In some cases there were as many as 18 people on one line, making it "quite unfunctional" which, in turn, resulted in the clerical staff spending more of their time on activities such as "the conveying of messages back and forth for people who simply aren't reachable."

The third, and most frequently mentioned, factor leading to increased workloads for support staff was what the participants called "downloading" from central administration to the departments. Downloading, explained Chair G, occurred when responsibilities were decentralized without the corresponding resources to manage them, placing tremendous pressure on support staff at the departmental level:

The other half of the equation that increases our workload, or our busy-ness co-efficient, is this downloading idea . . . for instance, accounting now is changing in the university . . . The university is . . . trying to devise new systems for record keeping and bookkeeping, and student record keeping, and so forth . . . which will be at a much lower level . . . the departmental level, and it's imposing a real strain because we don't have any more resources to deal with that . . . we may be able to cope with it without killing ourselves, but

right now, many people are very worried about that, because jobs that used to get done up there are now suddenly being done down here.

Chair D concurred, stating that "the transfer of duties . . . whether it's graduate student applications . . . accounting activities, and so forth . . . to us at the time when we were cutting back on resources has seriously impacted on our declining resource base, and made the environment a little more frustrating."

While a few department chairs attributed the phenomenon of downloading or decentralization to current management trends, most others, such as Chair F, attributed it directly to the budget cuts, pointing out that the practice was unfair because it amounted to the departments being "hit twice" by the same cut. He explained:

If you have a layered administration as we have, if you have a particular unit and we have to go to that unit for services, then that unit suffered budget cuts in the same way we suffered budget cuts. But now, what we find happening is that when we go to that unit for services, they're downloading their cuts onto the department, so . . . I have to download it on faculty members, students, and so forth, but the point is, I've already taken my percentage cut [so] I'm picking up the slack for that unit as well, and that's not fair . . . It's simple things, like all of a sudden we're supposed to pay for the postage of things that used to be covered by a different unit, or we have one unit on campus that now charges supervisory fees for doing a project. It charges design fees, charges this, and charges that, and it all comes back to the fact that they were cut, so they can't pay for it, so they pass it down to us. So we get hit twice . . . and if it's not in terms of dollars, then they actually pass the paperwork around to us. So that, in part, is why we see this increased paperwork coming through.

Chair M asserted that the workload issue was compounded by the fact that at the same time that "central administration downloads responsibilities . . . they also upload expectations. You know, the old 'do more with less' kind of thing." Chair G saw it in terms of an "accountability thing," as did Chair K: "They [central administration] want to know that you're using your resources as efficiently as possible, and you've got to plan for using them efficiently." As a result, he explained,

We're up to our eyeballs in this. And every year there are similar kinds of plans that have to be done for one reason or another. All kinds of reports, the number of reports, plans, projections, all of these sorts of things that we are expected to do, has increased exponentially since I became chair, and an immense amount of time goes into this.

He concluded, "When we talk about managing a department with three secretaries, the stress on them is less from the faculty members than it is from the stuff that has been downloaded on the department; it's the endless number of reports and stuff that they have to do."

To exacerbate the matter, added Chair K,

we're not getting adequate feedback . . . they [central administration] ask for reports, and it's as if you send them into a black hole. You don't find out whatever happens to them. You don't find out whether they're good, bad, or indifferent. You can ask for feedback, and not get any answers.

Many of the other department chairs interviewed made the same point. Chair I claimed to "seldom get any feedback from the administration when I give them input," and Chair F remarked that, "the volume of paper that goes across this desk is just staggering . . . [and] as far as I'm concerned, it may just as well go in that garbage can because I never see or hear anything back from them . . . I get requests for this, this, and this . . . and it just vanishes." Chair J admitted, "that's a real frustration. One resents having spent the time on a questionnaire if there's no follow through."

According to Chair C, that was a crucial point: "All of these things chew up a lot of time." In his view, this impinged not only upon the day-to-day workload of departmental support staff, but upon "the main responsibility of the person in the chair." Several other chairs expressed similar sentiments, stating that increasingly their time was spent in "non-productive" or "unproductive" ways. Not only was there "a lot more time spent justifying what you do, [and] what you're planning to do," explained Chair H,

but also as resources become tighter, there's a lot more time spent . . . defending your turf, so to speak, because there's more encroachment upon it from everybody else . . . there's no expansion, so everybody's looking at how

to get more from somebody else. And so, everyone is spending more time trying to just defend their turf, which is, to a large extent, wasted effort, except you must do it because otherwise you're going to lose out. And so, I think chairs are spending more time in relatively unproductive ways. I mean, what we should be doing is evaluation of faculty, promoting student programs, promoting research, you know, basically making the system work better.

Similarly, Chair I contended that there was now "a very competitive [financial] environment" at the university which had forced chairs to "become more territorial." "You've got to get out and compete for your share," he maintained, "that's been a major change in the way chairs work . . . you can't just sit and administer, you have to be planning, orchestrating, organizing, and looking around to see where it's all coming from." He concluded, as did several others, that "one has to be far more resourceful now as chair," that "you have to be more of an entrepreneur." Chair H pointed out that "one of the factors that seems to be coming more and more expected of chairs is that you're going to be a fundraiser." Chair E agreed:

Like everybody else we're starting to explore fundraising possibilities and strategies and, on the other hand, we don't really have the resources to acquire that expertise in an efficient way, so I guess it'll be one more thing that I have to spend time, personal time, learning about. The faculty has a fundraising officer, so we'll be able to draw on that expertise a little bit, but we'll need to develop our own approaches for our own [department].

According to Chair F, "the biggest single thing that they [central administration] underestimated in the retrenchment and the merging of departments is that they did not look at the impact that it was going to have on the chair," claiming that his workload had increased by a third in the past few years. While some chairs, such as Chair B, advised that they had "worked as hard all the years [they had been chair]," others reported that they were putting in many more hours as the result of retrenchment. For instance, due to a loss in faculty positions, Chair E "had to take on more of the committee work that in the past would have been decentralized among faculty members." "Also," he explained, "there has been less graduate research assistance money available, so things that an assistant could have researched or come

up with, maybe draft policy positions on, I don't have that kind of assistance." Chair O claimed that "because of the budget cuts . . . there are courses that I had to teach myself," and Chair M advised:

When I first became department chair, we had a full-time department chair, we had a half-time associate chair, and we had a graduate co-ordinator, who I think was approximately half-time. The graduate co-ordinator position has been eliminated. I do that now, so I've absorbed that into my work role and, in addition to being chair, I also teach a six credit doctoral seminar, so I have added to my teaching load, taken on more of the responsibilities for the graduate area, and we've eliminated .5 FTE of administration across the department . . . more of my time is spent trying to help people to get research proposals going, trying to find funding sources, trying to recruit graduate students, trying to be familiar with scholarships, and this, that, and the other thing, so, you know, it's just a whole lot more.

Overall, the participants felt that administrative, clerical, and technical staff at the departmental level were, as Chair D remarked, "simply doing more" as the result of retrenchment. "Everybody's got a tough job and they're working hard," said Chair K. Most concurred with Chair B that the past several years have "really been stressful for the support staff," and with Chair N that "there's a need for non-academic FTE's to go back up." Chair I expressed the views of several chairs when he explained that the current low level of support staff created stress throughout the whole operation:

It makes it so that management has to become very careful because if anything goes wrong, it really goes wrong, and . . . it creates a lot of stress. The only way around it right now is to do effective management, so that there's a low balance, so that if something goes wrong somewhere, we can bring part of that load elsewhere. But it's right on the edge. There's no room for error. We can hardly even let people go on vacation.

Faculty. All of the department chairs interviewed reported losses in the number of faculty positions in their departments since the advent of the expenditure reduction program in 1994. Even after generously allowing for a one-to-one replacement of positions vacated through the FRERIP once the financial incentives were paid out (which would not necessarily occur, since all vacant FRERIP positions reverted back to the faculty and were reallocated by the Dean according to a faculty-

wide staffing plan), most of the chairs advised that their departments would still experience a net loss from 1994. This was due, in part, to the fact that faculty renewal under FRERIP, which was not introduced until the 1995-96 fiscal year, applied only to positions vacated through that particular program, and not those vacated through normal retirement, resignation, or the earlier VERIP. As one chair stated, although it was likely that his department would "be allowed to fill every one of our early retirement [FRERIP] positions . . . one continues to have to lobby very strenuously for any other sort of position."

Several chairs also emphasized that the current faculty renewal program did little to address faculty erosion that had occurred prior to 1994. In reference to the pre-1994 retrenchment period discussed in Chapter 4, one chair who had been in the position for almost 10 years pointed out, "we've been losing positions for years," because there was not "any time in the period that I've been chair that we've ever had an [budget] increase." Another chair noted that "before last year [1996], we were . . . only recovering one position for every two lost." Other departments recovered even less. The combined effect of the pre- and post-1994 retrenchment periods on levels of faculty was dramatically illustrated by this chair's comments:

The cuts for our department have had an effect, I think, for about a decade rather than just the last couple of years. But, if I could shade that, if I could just cut that in half and talk about the most immediate five years. Before I assumed the chair, we had three years of successive cuts in the faculty, and that had resulted in a net loss of 10.3 FTE [in our department], so 10.3 . . . faculty positions were lost to cuts. Retirements that weren't filled. Resignations that weren't filled. Long-term disabilities that would not be filled. Now, since the early retirement incentive [FRERIP] has had such a dramatic effect on this department, we had 16 people take the package, in addition to [five] regular occurring retirements . . . [and] if you factor in the 10 lost already . . . we will have lost over half of our department by the year 2000 because of cuts and retirement.

While most of the department chairs did not report losses in faculty as severe as the chair quoted directly above, several described their losses as either "significant," "pretty heavy," "a real drop," "a lot," or "a good share of our positions."

Other chairs provided quantitative estimates that ranged from a low of 10% to a high of 40%. Regardless of the extent of the losses in faculty, all of the department chairs advised, as did this one, that "it creates a lot of pressure in terms of teaching."

Pressures arose primarily because enrolments at the university remained high throughout the period of the three-year expenditure reduction program. As discussed in Chapter 6, 1993-94 had been a record year for enrolments, and while numbers dipped slightly in 1994-95 and 1995-96, they returned to record levels by 1996-97, with high enrolments in all three years in Arts, Education, and Science. Despite the extra soft funding provided to the units to hire sessional instructors to compensate for lost faculty members, most of the department chairs advised that it did not allow for one-to-one replacement, and consequently, course offerings were cut back and class sizes were increased.

Course offerings were cut back through reductions in the number of courses, as well as reductions in the number of sections of courses. In some cases, "specialty" or "niche" courses offered to senior undergraduate and graduate students were eliminated because the faculty members specializing in those areas were lost. As Chair O explained, "Every person is responsible for an area, [so] remove the person, and it's pretty hard to cover them." This point was saliently illustrated by another department's experience, whose chair remarked:

The result of cutbacks is, for us, reduced number of courses . . . there are a number of things we have simply dropped. I mean, when our Field A people went, there went our Field A program. We only have Field B now taught on a part-time basis. We only have Field C now taught by people on a sessional basis. Our Field D program went down the tubes with retirements, and again, it's only through occasional sessional instruction that we offer those courses at all, but not on a regular or predictable basis. In Field E, we ended up dropping a sub-field because we lost our expertise there . . . Field F is disappearing, as our expert is retiring. Some of our Field G went when that expert retired, and so on. So, there's quite a range of things that we just cannot do the way we used to do.

While this particular chair was careful to point out that he thought his senior undergraduate and graduate students "are getting as good a program now as they

could before in the sense of quality taught in the classroom and so on," he did conclude that "what they're not getting is the same choice, the same range of things to choose from." Several other chairs concurred. For instance, Chairs H and D acknowledged "less choice" and "reduced offerings" in their senior programs. Chair M advised that "a lot of options that used to be there are not there," and Chair J admitted, "We've had to reduce our graduate offerings. Five years ago we offered 19.5 graduate courses. This year we are offering 13."

In other cases, courses were eliminated on the basis of low demand or redundancy, particularly with regard to undergraduate courses. Chair M spoke for many of the chairs when he stated, "Anything that isn't subscribed to the max is pretty well gone." Chair F explained that when you have only "4 or 5 students in a course, you cannot justify teaching those when you've got fiscal problems." Chair B agreed, "It's very much targeted to numbers." Chair E advised that in addition to eliminating "a number of the less popular courses in terms of student demand," his department had eliminated courses "where we thought that content could be integrated into other courses." Redundancy was a criterion used in several other departments to cut back on course offerings, as this chair's description demonstrated:

When we merged the two departments into one department, we had on the books at the time of the merger 160 courses for 30 faculty members, which there was no way that we could teach. So, what we did is, essentially said, "Okay, let's start again," and we threw that away and we totally redesigned our undergraduate program . . . there were a lot of courses that had been on the books and had not been taught for years. There were courses that overlapped in content. There were courses that were simply redundant because the discipline has progressed. So, we simply targeted those . . . We've reduced that number of courses now to about 90, so that we can handle it sensibly, and we got rid of a lot of courses that were just not needed anymore. So, we totally redesigned the undergraduate program, and time will tell whether we've done the right thing. I think we've done the right thing, certainly in terms of cleaning the books out. There were just too many courses in there. So, retrenchment has forced us to do something which we probably would not have done without that. We'd have probably stumbled along trying to cope with the masses of courses for which we didn't have enough instructors.

In addition to cutting back on the number and range of courses offered by their departments, many of the chairs reported, as Chair B did, that they had "increased class size and reduced the number of sections off the docket," primarily at the introductory undergraduate level. "Because our numbers of faculty have gone down somewhat," elaborated Chair G,

we have chosen, as I think many departments have chosen, to increase class sizes. We have done that at the introductory level. Where we had five sections of a course, we now offer four, let's say, or [where we had] four, we might go to three. It hasn't had an effect on the more senior courses, or on the graduate level training, because they're typically just one section to fill. But at the introductory level, it's led us in that direction, and I think we're not alone in that.

Chair G was correct; his department was not alone. In some departments, chairs were obliged to run what Chair B called "jumbo classes, which means over 200 [students]." For example, Chair H remarked that "all of our introductory classes are taught in the largest room we can get . . . there's essentially no class less than 200 students." Chair D explained that "in order for us to keep our teaching loads within sensible limits . . . with the large intake, we have to maximize the use of large classrooms . . . in the first and second year," and Chair N commented that "the [introductory] sections are full. I mean, really full . . . [in] rooms that take 253 people, there are 253 people . . . the courses are full to the point of sitting in the aisle." He added, "That's the only way to do it economically because . . . if you've got to open another section, then you've got to hire a person." Even chairs that did not have access to jumbo-sized classrooms reported "opening the ceiling" on their undergraduate classes, and filling them either to, or beyond, room capacity. Chair M was one such chair, and he stated:

Class sizes have gotten larger. The undergraduate program, believe it or not, was planned for a staff to student ratio of 1:25. Our classes now run 40 to 45, which actually exceeds room capacity in many cases. We also run large sections. We ran a section in the first term of something like 516 people . . . I can't remember exact numbers, but a phenomenal size section. But, we're

also restricted by the fact that . . . we don't have access to a large number of large spaces, so we can't offer that many more courses in very large groups. So, what we're doing is, we're kind of maxing out at 40, 42, 45 in spaces that were not designed for that number of people, [and] when the program was really designed for approximately 1:25.

In Chair D's assessment, large classes held in inadequately-sized classrooms was "unsatisfactory pedagogically," and ultimately resulted in "the diminution of the learning environment" for undergraduate students attending the university. Several of the other department chairs felt the same way. As Chair M explained:

You can't do with a group of 45 what you can do with a group of 20. You can't give the same assignments that you would with 25 if you've got 40 or so. So, you end up going more towards a mid-term examination which is a fairly straightforward kind-of-thing that you can mark on a right/wrong sort of basis. Things that involve construction of instructional materials, and that sort of nature, are difficult to mark [and are] time-consuming, and you can't do it with 40 as you would have done with 25.

Chair H agreed, remarking that "once you get into classes of a certain size, you end up using multiple choice." Further, he pointed out, students in large classes had little "chance to actually talk to professors." Chair G concurred. "I mean, how many [undergraduate] students [today] actually have an experience, an intellectual experience, with a professor?" he pondered, then expounded, "It's very hard when you've got a class of 250 students, and you see that little head down there, and a voice over the intercom."

According to Chair M, there was less interaction between faculty and undergraduate students, "not because the professors are hard-hearted or want to get away with as little as they can do, [but] they're just stretched so thin . . . they haven't got the time, they haven't got the energy, it's just not there." Many of the other chairs agreed, citing increased teaching loads as a major impact of retrenchment on departmental operations. In some departments, teaching loads increased because individual course loads were raised to compensate for faculty members lost to retirement or resignation, as was the case with Chair O, who advised that "we've

increased the number of courses that everyone has to teach." More common, however, was the predicament of Chair B who remarked, "We haven't changed the teaching load for individual staff members, but it has in de facto because of the increase in class sizes." Chair G concurred, commenting that "the load on the instructor goes up enormously when you increase the numbers." While some departments had extra funds to hire teaching assistants for the large classes, other departments did not. Consequently, many of the instructors in the have-not departments were, as one chair described it, being "run off their feet." Chair N concluded:

People are working at a higher stress level because of the number of students they have to deal with. There's no flex in this system. We can use the classroom analogy. When you get 252 students in there, usually people are sitting in the aisles. You need 10% empty space to make a room work. And so, it's always at the limit. Everything is at the edge. I can see the stress in some faculty members. People are asking for time-off . . . or burning out. We had one sessional [who] burned out this year completely . . . [because] there's no flex. Sometimes a staff member . . . needs a term off, and you can't give him that at all anymore.

Many of the department chairs pointed out that the pressures of increased teaching loads on faculty were exacerbated by expectations to not only do more research, but to find the funding to do it. As noted in Chapter 5, performance was a key criterion of the new provincial funding structure, and funds disbursed under many of the new envelopes were contingent upon such factors as faculty citations in major research publications; national peer group rankings in federal council awards, community and industrial funding, and sponsored research revenues; or the procurement of matching funds. Consequently, as discussed in Chapter 6, the university expected greater faculty activity in those particular areas. "We [the university and the department] expect people to be publishing," remarked Chair H, "and it's publication in international terms which counts." Additionally, commented Chair O, "the pressure is there to get funding; for everyone to get funding." "Research is expected," advised Chair F, "and getting grants is part of the thing."

According to Chair D, "It makes it one of the tests of being a player in the department; to go out and find and bring back resources for the generally agreed direction of the department." Chair A agreed, stating that the attainment of external funding was "one of the most important yardsticks that we use as the measure of the success of our programs."

Several chairs of departments within the humanities and social sciences expressed frustration with the growing tendency to measure research performance in terms of levels of external funding, asserting that it denigrated the work of their faculty members and disciplines within the university community for two main reasons. First, as pointed out earlier, the humanities and social sciences had fewer external resources to draw upon than other disciplines, and therefore could not hope to attain similar levels of research funding. Second, large levels of funding were not essential to the conduct of many types of research undertaken within the humanities and social sciences. As one chair explained:

The [research] funds available [in the humanities and social sciences] are generally going down. I mean, that's part of the paradox of the thing. There's more people engaged in more research in the department than ever before, there are more people putting in funding proposals than ever before, but the amount of money available to support their research has gone down . . . there [also] may be a lot of people getting a lot of relatively small amounts of money which don't necessarily add up to a whole lot when you pool them . . . [but] you don't see the university lauding somebody who does a very small research project funded in a very small way . . . but with a fairly good impact . . . You do see the university lauding and putting in the press the NSERC grants that are millions of dollars, or hundreds of thousands of dollars, even if the bulk of that goes to some kind of hardware . . . You can do good research in many fields with relatively small amounts of money, but that fact . . . is not generally recognized around the university. What gets applauded, what gets rewarded, what gets pushed to the forefront, is the very large grants, and most of those are in the hard sciences, engineering, [and] medicine.

"The current culture . . . that grants equal research" commented a second chair, "is flagrant misrepresentation because we have always been doing research, we just haven't been getting big grants to do that research." "It's not like the natural

sciences," expounded a third chair, "which require huge outlays of money just for the equipment to do research . . . some faculty members in our department simply do not require research funding to do the kind of research that they do." A fourth chair agreed, remarking that the "two faculty members in this department that have the greatest international reputations have never had an external grant . . . these people essentially work in their offices with pen, paper, and computer, and that's it!"

More important than funding, pointed out one chair, was that if "we're going to have an increased emphasis on research, there has to be time to do it." Most other chairs concurred, regardless of discipline, asserting that it was unrealistic, if not unhealthy, to expect significant increases in research productivity at the same time that teaching loads were growing. "If you expect people to perform in research as well as in teaching," explained Chair C,

you're not going to get it if you ask them to do 90 hours of work every week. I mean, you've got to give them time to do these things . . . if you give a person two or three courses a term, he can't come up for air to get any research done. Research requires continuity. You can't just say, "Oh, I'm going to put it on the back burner now for eight months, and I'm going to come back to it." In the summer, he's going to be so tired, he's going to say, "To hell with all of this!"

Indeed, burnout or the potential for burnout among academic staff was a consequence of retrenchment identified by several other participating department chairs. "We have been able to retain excellent people, and we're hiring excellent people as faculty members," remarked Chair I, "but they're being worked very hard . . . And this is not good. It shouldn't go on for too long. There has to be a little bit of flexibility, so human beings feel that they don't have to perform 100% every year." On the surface, he added, it appears that "we're doing fine . . . but I know that psychologically many of these people are pushing themselves as hard as they can . . . [and] one is never quite clear how long people will keep going like this before they burnout." Chair B made the same point, stating that

people are very good, at least for a couple of years or a short period of time, at picking things up and just working that much harder, but that leads to burnout, and we've started to see some of that happening, and most in the last year. People just can't keep up that kind of pace.

Chair D agreed, advising that "people are certainly working harder . . . [and it's] been a stressful time . . . 10% of my faculty had stress-related health problems this year . . . you reach a limit of productivity in a declining support environment, and I think that health is another performance indicator." Similarly, Chair K advised that "you can only handle so much . . . people are stressing out . . . I have a colleague now who's on medical leave with depression. He is not the first. He's one of several in the years that I've been chair." However, he added,

the worst thing is morale. People are at one another's throats over the smallest issues. Sometimes the job of chair can seem like you're trying to manage a bunch of kindergarten children when you're dealing with your colleagues. Now, academics have always been peculiar, or have their peculiarities, but I think that what we're seeing now is something quite different from the odd eccentrics that used to become academics. A lot of these are very skilled, highly productive people who find it very difficult to get on with one another, in part because of the stresses in their own life.

Low staff morale as an impact of retrenchment was brought up by every department chair interviewed for this study. While several participants attributed the phenomenon primarily to increased workloads and their attendant stresses, others pointed out that a diminishing rewards base was also to blame, in particular, the 5% wage rollback discussed in Chapters 5 and 6. "People," explained Chair G,

rightly or wrongly, associate their monetary compensation with evaluation, and the university makes no bones about that. When we go to the faculty evaluation committees, what we're doing is we're talking about giving you an increase in your salary. In other words, we're using merit to dictate salary. When salary drops, you can't help but think, "Well, you know, somehow I'm less now than I was."

Chair C concurred, asserting that the wage rollback, which consisted of unpaid days off as well as a cut in salary (see Chapter 6), was tantamount to telling staff—both academic and non-academic—that their work was not valued:

The cuts changed the morale of people This is support staff and academic staff. I mean, most academic staff, at least in this department, feel insulted that they have unpaid days off to say I have an unpaid day off, what does this mean to an academic? I'm here at least six, if not seven, days a week, and so is a good chunk of the department. I mean, you go down the hall on Saturdays, [and] there are people in, so we don't have unpaid days off. [As for] The support staff, I think that 5% cut did damage in their attitude [because they began] saying, "Gee, I thought I was doing a reasonable job. Why am I being penalized? . . . [I guess] People don't value what I do."

Although most of the chairs felt that low morale was pervasive among the staff in their departments, several pointed out that it was particularly low among the "middle-ranked"—that is, those who had been on staff for a number of years, but were still too young to qualify for the early retirement packages described in Chapter 6. According to these chairs, central administration was directly responsible for the low morale among this segment of staff because these people bore the brunt of the increased workloads, yet received little in the way of recognition or appreciation. As Chair M eloquently elaborated:

Morale is very low. There's a group of people who are on early retirement programs who see their careers coming to an end, and they're not slackers, I mean, they don't throw everything up in the air and say, "Oh well, good, I'm going to goof off now for a year or two." They're not that kind of people. But they are withdrawing from things . . . taking on graduate students, for example, you know, they're saying, "It's not fair to them if I take on graduate students, I'm going to be going." They very often say, "Well, if there's a decision to be made," for example, about a program or something like that, "I'm not going to be here to live it, so I don't feel as though I really should have a very strong voice in it." That group of people are withdrawing. The group of people who have been here a while, but are not retiring, which is a smaller group, are feeling more and more is being placed upon them. More, bigger workload, and so on. There are feelings that they are being dumped on by having to take on a greater and greater workload, but not really being considered as the people that the university wants. You know, to the people who are retiring, it was made pretty clear by central administration, "We want to kiss you off, so we can get better, cheaper people." There was no doubt about it. But they have the advantage of saying, "Okay, I can, sort of, soothe my wounded ego by the fact that I'm getting a retirement allowance," which in some cases is quite a substantial sum of money. "I've had a good career, it's been a good life, and I'll go on my way." The people who have to

stay, who didn't quite qualify, some of that smear has rubbed off on them . . . you know, "You're not quite old enough to get rid of yet, so we'll keep you around and dump all this stuff on you, carry the large classes; you'll never meet our expectations, but we can't quite pay you off yet."

"I can't emphasize too much the psychological effect [of retrenchment] on people," expounded Chair G,

and I think I could fault the administration for not seeing the importance of that, and saying instead, "Well, we're going to hire all these hot shot, young new people," when you've got a lot of very good people who got you there in the first place. And they're saying, "Well, what about us? You know, we've been dumped on, consider our needs as well."

Chair J concurred, stating that "in the push to recruit and obtain the best and the brightest . . . some of my middle-ranked colleagues feel left-out, shunted aside."

These people, asserted Chair I, "They work hard . . . [and] somewhere down the line they have to feel that all the effort has gone somewhere." Chair K agreed, advising "the university needs to find some way to make itself more humane, and that's not an issue of money, in and of itself. It's an issue of how we relate to one another . . . [and] what can be done to foster a spirit of collegiality and mutual support and so on." He concluded: "The university doesn't seem to be giving any attention to those sorts of issues."

Conversely, other chairs felt that "money is important," not only for the sake of boosting the morale of existing staff, but for the sake of successful faculty renewal. Indeed, low salaries and their adverse effects on recruitment was one of the most frequently mentioned issues in the interviews. As most chairs pointed out, the decade of institutional retrenchment that occurred prior to the provincial grant reductions of 1994 (see Chapter 4) had taken a toll on faculty salaries at the U of A, which were low in relation to comparable institutions even prior to the 5% rollback. "Salaries are a problem," advised Chair M,

We try to flog cost of living because Edmonton is one of the cheapest places in Canada to live . . . we try to talk-up the quality of life . . . try not to bring them [prospective recruits] in January and February, but our salaries are

low. They're poor, you know. I, frankly, wouldn't come on for some of the salaries I offer people.

Other chairs' comments were similar. For instance, Chair F remarked that

They're [the university] not paying the salaries that they should be paying we're off the end of the scale. And the point is, on this, that if the university wants us to have the best people here, give the best training to the students, you can't do it when your offering that salary.

Chair E agreed, stating "We can't attract top people if we're not willing to pay top dollar. Scholars don't want to have to eat stale bread any more than their neighbours on the street." "If it [the university] wants to live up to its aspirations," concluded Chair D, "it will have to become much more competitive in salaries."

As with other issues discussed in this chapter, the impact of retrenchment on faculty recruitment varied by discipline, with department chairs in the industry-oriented sciences and professionally-oriented social sciences reporting the greatest difficulty recruiting, and those in the humanities the least. "We don't face that problem by and large," acknowledged an humanities chair, explaining

There are certain areas where it would be difficult to recruit, but it's still very much a buyer's market for most positions at the moment The problem is that these people are not able to get jobs at all In most fields [in the humanities] . . . the shortage of positions is acute, and so there's a considerable excess of very talented people on the market.

In contrast, advised a chair in the sciences, "our biggest problem at the moment is recruitment industry is very competitive, and the United States is very competitive for quality people, and we're recruiting in areas . . . which are in high demand." "There's a lot of money out there in the industry," agreed a second chair, "and this is the bottom line right now in Canada. What we're competing with is industry, for the most part, not the other universities, or we're competing with American universities." A third chair elaborated:

Most of our undergraduates that finish after four years, and certainly all of our graduate students . . . will get jobs [in industry] immediately. They're in very high demand. Not only are they in high demand, but they're getting paid

very good salaries. I've got M.Sc. students here that are finishing that have been offered more to go and work in the [name omitted] industry than I can offer a starting faculty member We seem to be averaging somewhere between 30 and 50 applicants per position, and that is low compared to, say six or seven years ago, when we'd have had 70 to 80 . . . the reason it is low is primarily because people are being siphoned off into industry. People that have got Ph.D.s, for example, they could double, very easily double, the salary that we offer them here by going to industry The second problem I face is that if I go in to try and attract people from the States, I cannot compete with the salary levels in the States. There's no way, I mean, we're just not in the same picture. So we do lose out. I offered a position to a person a couple of weeks ago, and we lost that, and that's the second year I've advertised that position, and now we'll have to go back and re-advertise again next year for the third time.

"Our salary structures are now so bad by comparison to other, even Canadian institutions," added a fourth chair, "never mind top U.S. institutions, which is our real competition for the sort of researchers we're looking for that, yes, it's a massive problem. Someone has to have almost a cultural identity with this place in order to want to come here."

Despite recruitment difficulties, most of these chairs contended, as did this one, that "We don't compromise our standards. We always end up with a short list of people, and . . . if we're not able to hire one of those, then we don't hire." In fact, all of the department chairs participating in this study articulated a commitment to hiring only "high quality people." However, they acknowledged, because the majority of their hirings were now restricted to junior ranks (see FRERIP, Chapter 6), restoring the skill and expertise that was lost as the result of the three-year expenditure reduction program would be a long-term process. "We've lost university professors," explained Chair J,

we've lost people who are at the top of their profession, and these are very serious blows to the department. You can't rebuild those places with promising juniors. I don't care how promising they are, they just don't have the 30 years of publishing experience that Professor X had.

Additionally, pointed out Chair K, junior staff have "a great deal to learn about things like collegiality, and how the system works in general." "These things have a very long window," concluded Chair N, "it takes a fairly short time to dismantle [a good department], but it takes a long time to bring it back . . . it takes 10 years to make a real top-notch, full professor; from the time he's hired when he's 30 to the time he gets to 40."

Material Resources

As noted in the introduction to this section of the chapter, material resources referred to "hardware, infrastructure, and that sort of thing." In comparison to "the human resource factor" discussed above, the participants made fewer comments about the impact of retrenchment on this aspect of departmental operations, which is consistent with the fact that non-salary and benefit expenditures comprise only a minor portion of most departmental operating budgets. Additionally, the chairs' perspectives on material resources were more situationalized than those on human resources. That is, circumstances varied considerably between departments, with some chairs reporting that their facilities, equipment, and supplies were "grossly inadequate," while others advised that they were "doing very well." With regard to facilities, chairs of departments located in the newer or renovated buildings on campus, not unexpectedly, had fewer problems than those in older, unrenovated buildings, with the common denominator between them being the following two comments. First, that the supply of large classrooms on campus was insufficient in relation to the need to hold the "jumbo" classes discussed in the previous sub-section, and second, that most existing classrooms on campus lacked both the structure and technology conducive to modern and innovative methods of instruction.

In departments where computer and other types of laboratory equipment were required for student programs, the chairs stated that there was a "critical need" for replacement and modernization. "There certainly aren't sufficient funds to replace the undergraduate equipment in the labs, just to keep them modern and up-to-date," said one chair. "Where the crunch comes in," pointed out a second chair, "are the higher

level courses which can require quite expensive equipment." He explained, "We had a case last year where we were teaching with a piece of equipment bought in the early '70s, and it, the thing was just wearing out, breaking down, maintenance was a problem, and we literally . . . just couldn't keep it repaired." "You have to renew and upgrade continually," commented a third chair,

and that includes equipment for undergraduate labs, teaching resources, and that sort of thing. We are really getting old, and the older you get, the more you start depending on the people again. And here we get into the conundrum [because we have fewer technical staff].

"We could continue to function," he concluded, "but I would say that we would become extremely uncompetitive on a national basis, and certainly on an international basis, if this happens."

Several department chairs in this study also reported having difficulty providing and maintaining basic office equipment. For instance, Chair E advised that "We have almost no . . . continuing line items in the operating budget . . . for supplies and equipment services, and we have a very difficult time keeping our computer equipment . . . up-to-date," and Chair F commented, "We're having trouble putting a phone in every faculty member's office." Indeed, a number of chairs reported having to implement "party" or "shared" telephones lines throughout their departments. At least, said Chair H optimistically, "we still have telephones, unlike the Department of [name omitted] which doesn't." "Technology is just a black hole," concluded Chair M, "We could shovel money into it from now until the cows come home, and the hole would be bigger. Equipment, you know, the network, and all that sort of stuff, whatever spare money we have goes in there." In the judgment of several other chairs, the technological black hole was unnecessarily deepened by central administration. Chair C explained:

The central places like the comptroller's office and the registrar's office which are supposedly supply of service . . . have downloaded more to the departments . . . They seem to be obsessed with changing their computer systems without supplying any funds down lower. I mean, every time . . . they change the central way they do the comptroller's office, [or] the registrar's

office, they don't look at the ripple effect. We've got to buy new machines down here, but there's no money in the budget for us to buy large screen computers, [or] buy stuff with 32 megabytes of RAM. Our old systems seem to be quite functional. Why change it just because it's an in thing to do?

As was the case in several previously discussed instances, the equipment "crunch" was mitigated in departments with high levels of external research funding. "We subsidize, in fact, the operations of the department as a teaching function by income we get out of research overhead," advised one chair, "So the extra revenue, it's not enormous, that flows into the department from these activities goes into maintaining an adequate level of support so that the students don't feel that they're under supplied." "It's kind of illegal," remarked another chair, "but it happens . . . we are depending upon the generosity of those who bring in research funds to put in place facilities that might be used for teaching." "Similarly with the research," he added,

all of the machine shop stuff is 20, 30, 40 years old, and what we're doing now is siphoning money off the funds coming from outside through . . . shared expenses, and we're hoping that that will keep us going for the next 4 or 5 years.

In essence, stated a second chair whose department had adopted the same practice, "we have generated our own internal tax system to keep things sustainable."

Other chairs made a similar point, asserting that faculty members increasingly subsidized departmental operations through cost-recoveries on office supplies and services, a policy that was practiced to various degrees in most departments included in this study. "We run our department largely through recoveries," remarked one chair, "and that's how we make up this huge shortfall between what has been cut and what continues to be needed." He explained:

We recover money from colleagues by sharing phone lines, by insisting on payment for all long distance phone calls, by insisting on payment for postage and supplies; copy cards are purchased in the department . . . Now, we give a certain quota to each faculty member in terms of a supplies or copy card budget, but that is quite diminished to consider that one could actually run a series of courses for a year and keep everything going with an allotment of \$30 . . . so, you can choose between copy card and stamps, or copy card and

fax charges, copy card and some supplies. But anything over and above that limit must be purchased. So many of my colleagues, most of my colleagues, end up purchasing copy cards, either for their own research or for classroom materials.

"This is not a professional operation," commented a second chair,

For years it's been known that people have to buy their own computers, very often out of their own pockets . . . The place doesn't supply the equipment that you need. It doesn't supply the services that you need. Why should you have to pay for professionally-required long distance phone calls? But we require our people to do that. When they send book manuscripts off by courier, very often that's out of their pocket. It's not out of the department budget, and yet this is their research. This is their professional work.

"The university provides money to faculties which allows them to set-up . . . new individuals," remarked a third chair, "[but] basically, you still have to go outside to get the funds you need to continue to do your program [of research], and to buy the equipment as well." "And that's part of the drive [of retrenchment]," concluded a fourth chair, "if people [at the university] want an environment in which they can be productive, they are driven to go and get external funding to do that!"

Summary and Discussion

The primary effect of institutional retrenchment policies on the operations of the 14 academic departments at the University of Alberta included in this study has been to diminish both the working environment for staff and the learning environment for students. The implementation of the institution's three-year expenditure reduction program in 1994 resulted in major reductions in the numbers of academic and non-academic staff at the departmental level. Fewer staff coupled with large enrolments, higher performance expectations, greater accountability, and the phenomenon of "downloading"—that is, the decentralization or passing on of responsibilities without the corresponding resources to manage them—increased the workloads of administrative, support, and academic staff alike.

In addition to performing their extant roles, department chairs were required to assume the new roles of "fundraiser" and "entrepreneur," and to spend more of their

time on "relatively unproductive" endeavours such as preparing efficiency plans and reports for central administration and defending their existing budgetary "turf." Similarly, the roles of departmental support staff changed. As their numbers dwindled, enrolments remained high, and duties were downloaded from central offices, support staff were required to devote more of their time to administrative and related tasks and, consequently, spent less time providing service to academic staff. In turn, the roles of academic staff were altered as they "picked-up-the-slack" for support staff by performing clerical and technical duties themselves. At the same time, their teaching and research responsibilities grew as class sizes and course loads were increased to in order to maintain high levels of enrolment with low levels of staff, and greater levels of research and research funding were required to meet the new provincial performance funding criteria, as well as to offset diminished operating revenue.

While workloads in the departments grew, the financial rewards of working there shrank as staff were also required to accept a 5% cut in their salaries as part of the three-year expenditure reduction program. Additionally, academic staff subsidized the costs of departmental operations through the implementation of shared expense and cost-recovery programs for office supplies and services, and through the assumption of any work-related expenses not covered by departmental budgets. In departments with access to high levels of external research funding, which were generally those in the hard sciences and related disciplines, staff were able to pay for these expenses by "siphoning off" money from their research funds. However, in departments where levels of external research funds were less abundant, which were generally those in the humanities and social sciences, staff commonly funded such expenses "out-of-pocket." In other words, not only were many operating and professional expenses transferred from the departments to individual faculty members, but this transfer disproportionately affected faculty in the humanities and social sciences.

Diminished financial rewards combined with stress created by greater workloads over an extended period of time led to the development of low morale among all categories of staff, and to a higher frequency of "burn-out" and other health problems among academic staff. For academic staff, low morale was exacerbated by the implementation of an early retirement/faculty renewal program that suggested that extant intermediate and senior faculty were highly paid but low-performing or, put another way, not desired and valued by the institution. The emotional rewards of academic staff were further diminished by the tendency to recognize the research contributions of only those faculty members who obtained large external grants to conduct it. As was the case above, diminishment of this kind disproportionately affected staff in the humanities and social sciences where levels of external research funds were not as great as in other disciplines.

For students, the diminishment of the learning environment varied by department and level of advancement. As the number of faculty declined throughout the period of the expenditure reduction program, the number of courses that departments were able to offer also declined. In some departments, specialty courses offered to senior undergraduate and graduate students were discontinued because the faculty members specializing in those areas had left the university, and these courses could not be offered by existing faculty or sessional instructors. As a result, students at the senior levels in those departments had fewer options and less choice in their programs. In other departments, as the number of faculty decreased, class sizes were increased to, and sometimes beyond, room capacities. This typically occurred at the introductory undergraduate level where there were many sections of the same class to fill, resulting in less student-instructor contact and interaction and the adoption of time-driven pedagogical practices. Finally, for all levels of students in departments where computer and other types of laboratory equipment were required for student programming, the learning environment was diminished by the inability of departments to fund the renewal of these resources.

CHAPTER 8

OVERVIEW, CONCLUSIONS, AND RECOMMENDATIONS

This chapter provides an overview of the study on the impacts of changes in funding and related policies in higher education in Alberta from 1994 to 1997. In the first section, the purpose, justification, method, context, and findings of the study are reviewed. In the next section, key areas where the study has contributed to the higher education literature are identified. The chapter concludes with recommendations for practice and further research.

Overview of the Study

Purpose

The purpose of this study was to determine what impacts recent changes in funding and related policy in higher education in Alberta have had on operations at the University of Alberta, the province's largest institution of postsecondary education. The General Research Question guiding the study was "How have changes in funding and related policy in higher education in Alberta since 1994 affected macro- and micro- institutional operations at the University of Alberta?"

To address the General Research Question, data were sought in relation to the following Specific Research Questions:

1. What specific changes in policy have occurred in the funding of public institutions of higher education in Alberta since 1994?
2. How has central administration at the University of Alberta responded to the changes in provincial funding policy since 1994?
3. How has the macro-institutional response of the University of Alberta affected the operations of academic departments from the perspective of department chairs?

Justification

The study was justified on the basis that Alberta was a forerunner in the movement toward accountability, economy, and efficiency in higher education in Canada. In 1994, Alberta became the first province to implement systematic, rapid, and large-scale reductions in funding to higher education institutions, as well as to introduce a method of funding that was partially contingent upon institutional performance. A review of the Canadian higher education literature suggested that since other provinces were considering the implementation of similar policies, and research into the impacts of these types of policies was modest, this study would be informative to higher education administrators, public policy makers, scholars, and the public at large.

Further justification for the study was identified in a review of the American higher education literature which indicated that although institutions apparently were transforming themselves in response to reduced public financial support, the phenomenon was neither well documented nor well understood. Specifically, Phillips, Morell, and Chronister (1996, p. 17) pointed out that there was a paucity of comprehensive information about any one institution's experience, and Dickman, Fuqua, Coombs, and Seals (1996, p. 467) suggested that case study methods be employed to investigate institutions that have implemented retrenchment processes and documented outcomes.

Method

The study employed a case study strategy with an intent to provide readers with an intensive and holistic description and analysis of the phenomenon investigated. Data were collected from multiple sources representing three separate points of view. These included a systemic perspective, a macro-institutional perspective, and a micro-institutional perspective. Each perspective corresponded to one of three Specific Research Questions which had been constructed to illuminate what policy decisions had been made, why they were taken, how they were implemented, and with what result.

Documentary data spanning the periods 1994-97 and 1983-98 respectively were collected to provide the systemic and macro-institutional perspectives. Data collected to provide the micro-institutional perspective consisted of transcripts of audio-taped, semi-structured interviews conducted in April 1997 with 14 academic department chairs from the institution. Two department chairs who did not participate in the study assisted in the preparation of the interview guide. The department chairs were selected on the basis of institutional representativeness, involvement in restructuring, and extent of budget cuts. The audio-tapes of the interviews were transcribed verbatim, and the transcripts were reviewed for accuracy by the participants prior to analysis.

The data were analyzed sequentially in sets corresponding to the order of the Specific Research Questions. Each set of data went through three successive stages of analysis: (a) developing initial frameworks by separating the data into major policies, initiatives, or categories; (b) describing the major policies, initiatives and categories in terms of the specific strategies or issues underlying them; and (c) conceptualizing and explaining the descriptive data thematically, that is, in terms of unifying and/or dominant ideas. The veracity and credibility of the analyses were enhanced through the explicit reporting of the procedures employed, by incorporating the successive stages of analysis into the structure of each chapter of findings, and through the extensive display of data throughout the report.

Context

Contextual information relevant to the analysis of the findings was presented and summarized in Chapter 4. Two primary pieces of information were identified. First, 1994 was recognized as a watershed year for higher education in Alberta with Advanced Education and Career Development's (AECD) announcement that the postsecondary system would be restructured to achieve greater accessibility, responsiveness, affordability, and accountability. The provision of funding to public institutions was of central importance in the restructuring plans as institutional operating grants were marked for a three-year cumulative reduction of almost 20%,

and a new mechanism of funding and several related policies were to be introduced to induce the desired systemic changes.

Second, it was established that the University of Alberta (U of A) had been in a state of retrenchment for more than a decade prior to AECD's announcement of its retrenchment and restructuring plans. Financial problems had been acknowledged by central administrators as early as 1983, and had been addressed since that time through a series of uniform and selective budget cuts. By the time AECD began to implement its retrenchment and restructuring plans in 1994-95, the U of A had already substantially downsized its level of staff and scope of operations. Consequently, AECD's decision to reduce institutional operating grants by 19.7% between 1994 and 1997 compounded the institution's already precarious financial circumstance.

Findings

Findings in relation to Specific Research Question 1, "What specific policy changes have occurred in the funding of public institutions of higher education in Alberta since 1994?" were presented, summarized and discussed in Chapter 5. The findings suggested that the changes could be viewed in terms of a shift from a system of expanding, unconditional, recurrent funding toward a system of contracted, more conditional and fixed-term funding. The new system was found to have four primary objectives. The first was to reduce the public level of support for the general operating costs of the higher education system without compromising accessibility and quality. The second was to increase the level of support for higher education from students and industry, the consumers of higher education products and services. The third was to improve the responsiveness of the system to market demands and more directly serve the needs of economic growth. The last objective was to improve the productivity and efficiency of the system through the introduction of business-like practices and market-based stimuli.

Findings in relation to Specific Research Question 2, "How has central administration at the University of Alberta responded to the changes in provincial funding policy since 1994?" were presented, summarized and discussed in Chapter 6. The findings suggested that the university's response to the changes in provincial policy could be viewed as a multi-pronged effort consisting of selective expenditure reduction, strategic resource reallocation, and private revenue generation that was intended to adapt the institution to the reality of declining levels of public financial support as well as to strengthen it academically in the long-term.

To reduce expenditures, the university undertook extensive administrative and program restructuring, cut the base budgets of both academic and non-academic units, and reduced employee compensation. Budgets were cut selectively on the basis of enrolment, academic quality, and strength of plans for the academic units, and on the basis of institutional priorities and strategic initiatives for the non-academic units. Over three years, annual net operating expenditures in the academic units fell by 8.1%, while those in the non-academic units grew by 4.5%. Expenditures in the non-academic units grew because saved funds were reallocated to areas deemed essential to future institutional health, such as better computing systems and the generation of private financial support. Actions undertaken to increase levels of private financial support included raising tuition fees, increasing grantsmanship, fundraising, and establishing more research-related businesses and partnerships. By 1997, institutional revenue had recovered to the 1994 level as the result of these efforts, but because a large proportion of the new revenue was for restricted purposes, it did not alleviate the constraints on general operating costs imposed by the cuts in provincial grants.

Findings in relation to Specific Research Question 3, "How has the macro-institutional response of the University of Alberta affected the operations of academic departments from the perspective of department chairs?" were presented, summarized and discussed in Chapter 7. The findings suggested that the primary effect of the policies was to diminish the working and learning environments at the institution. The implementation of the expenditure reduction program in 1994 led to major

reductions in academic and non-academic staff. Fewer staff combined with higher enrolments, greater expectations of performance and accountability, and the downloading of responsibilities led to increased workloads for administrative, support, and academic staff.

While workloads grew, financial rewards declined as the result of a cut in compensation, an uncompetitive salary scale, and the transfer of some operating expenses from departments to individual faculty members. This transfer disproportionately affected faculty in the humanities and social sciences, where smaller amounts of external research funds were available to offset the transferred costs. Declining financial rewards coupled with the stress of greater workloads resulted in low morale among all types of staff. Low morale among academic staff was exacerbated by the introduction of early retirement/faculty renewal programs, which gave intermediate and senior faculty the impression they were not valued by the institution. The emotional rewards of academic staff were further diminished by the university publicly lauding the research achievements of only those faculty members securing large external grants. Once again, diminishment of this kind disproportionately affected faculty in the humanities and social sciences who did not have access to external research funds as large as those in other disciplines.

The diminishment of the learning environment for students differed by department and level of student advancement. As the number of faculty declined due to budget cuts, the number and range of courses that departments were able to offer also declined. Specialty courses for senior undergraduate and graduate students were dropped in some departments because the faculty specializing in those areas had left the university. Additionally, many departments expanded their introductory undergraduate class sizes to accommodate the smaller number of faculty, resulting in less student-instructor contact and the adoption of time-driven pedagogy in those classes. For students in particular discipline areas, the learning environment was also diminished by the inability of departments to fund the maintenance and renewal of computer and other types of laboratory equipment.

Conclusions

The conclusions presented in this section are offered in addition to the key points and arguments presented in the Summary and Discussion in each of Chapters 5 through 7. Consistent with the degree of generalizability inherent in the purposively selected, single case design of this study, these conclusions relate to general themes in the higher education retrenchment literature. As noted in Chapter 3, the study was limited to theoretical elaboration, a process which Schwandt (1997, p. 3) explained involves generalizing to concepts, theories, or models, but not to universes or populations of cases or instances. While the findings of this study are limited for the purposes of scholarly generalization, the detailed information about the Alberta system of higher education, the University of Alberta, and the sample of department chairs presented in the study may allow the readers to apply the findings to other systems and institutions with which they are familiar, and to draw additional conclusions.

Reduction, Reallocation, and Restructuring

Generally, the findings of this study reinforce the premise in the higher education literature reviewed in Chapter 2 that retrenchment has led to fundamental change in higher education in North America (e.g., Mortimer & Tierney, 1979; El-Khawas, 1994; Phillips et al., 1996). That is to say, expenditures are not merely being reduced, but resources are being reallocated and operations are being restructured (e.g., Levin & Dennison, 1989; Small, 1994, 1995; Study Group on Restructuring, Pew Higher Education Research Program, 1993). In Alberta, such change is occurring on both a systemic and institutional level, which is not consistent with Small's (1994; 1995) contention that change in Canadian higher education has been institutional as opposed to system-wide in scope. In their analyses of *New Directions*, the Alberta government's 1994 policy framework for development of the higher education system, Rae (1996) and Emery (1997) suggested that the primary intent of the strategies contained in the document was to shift the system of higher education in

Alberta toward a market model. The analysis of the funding and related policies emerging from *New Directions* presented in Chapter 5 supports this interpretation.

Not only have general operating funds from government been dramatically reduced, but institutions are now expected to raise a greater proportion of their operating revenue from students and industry, the direct consumers of higher education services and products. Additionally, greater institutional efficiency has been mandated through the 5% wage rollback initiative, required renegotiation of collective agreements to allow for academic staff adjustment, the disallowance of deficit budgeting, the implementation of enrolment standards, and the adoption of the three-year business planning approach. Finally, a new mechanism of funding has been put in place that not only ties additional government funding directly to the fulfilment of market needs and economic growth, but has created a market-like atmosphere within the higher education system by fostering competition between institutions for the additional funds, which are awarded on the basis of performance.

From an international perspective, Alberta is not unique in its movement toward a market model for higher education, but part of a global trend. As Goedegebuure, Kaiser, Maassen, and de Weert (1993) pointed out, governments world wide are intervening in various degrees in higher education systems to ensure greater efficiency, quality of outcome, accessibility, accountability, and responsiveness to market priorities. What the outcomes will be for higher education in general is still uncertain (Goedegebuure, Kaiser, Maassen, Meek, Van Vught, and de Weert, 1993, p. 348). In Alberta, with regard to the U of A, it appears that several of AECD's restructuring objectives are being met. Specifically, private sources are now contributing proportionately more to revenue at the institution than they had been in 1994. General operating expenditures have been substantially curtailed, and financial resources in the academic units are now being allocated on the basis of enrolment or student demand. At the same time, with the 1996-97 level of enrolment returning to the peak of 1993-94, accessibility at the institution has not been harmed. On the whole, the U of A has met AECD's criterion for increased productivity, that

"more can be done with the same or less amount of money or effort" (Alberta Advanced Education and Career Development, 1996f, p. 4). However, as the findings in Chapter 7 indicated, this has not been achieved without compromising quality or, at least, certain aspects of quality at the institution. In particular, the quality of the working environment for staff and the quality of the learning environment for students have been eroded.

The following factors were identified as contributing to this erosion: (a) fewer staff; (b) downloading of financial responsibilities, both from central units to departments and from departments to academic staff; (c) downloading of administrative responsibilities from central units to departments; (d) the transfer of clerical and technical duties to academic staff; (e) bigger teaching loads; (f) higher research expectations; (g) fewer support services and supplies; (h) reduced salaries and an increasingly non-competitive salary structure; (i) growing intra-institutional and inter-disciplinary competition; (j) shrinking program and course diversity; (k) expanding class sizes; (l) time-driven pedagogical practices; and (m) inadequately sized and equipped classrooms and laboratories. The identification of these factors by the department chairs who participated in this study supports Ell's (1988) and Pawlak's (1992) conclusion that faculty members in Canada perceived retrenchment to have negative impacts on basic elements of their professional work, and further, contributes to knowledge in this area by delineating substantive issues giving rise to such perceptions.

At the University of Alberta, a primary effect of the factors identified above was a decrease in the level of staff morale, which the higher education literature (e.g., Williams, Olswang, & Hargett, 1986; Kerlin & Dunlap, 1993; Kissler, 1997) has suggested is a common impact of retrenchment. Although the strategic planning literature (e.g., Zammuto, 1986) has assumed that morale is related to the degree of participation in retrenchment decision making, no evidence was found in this study to support this assumption. Rather, morale in this case was found to be related to the type of cut and the overall financial context of the institution as Williams et al. (1986)

and Kissler (1997) respectively have postulated. Specifically, the department chairs identified the cut in salaries as particularly damaging to staff morale, and this was related to financial context in that it was acknowledged that salaries were not likely to be restored until the finances of the institution improved.

In addition to demoralization, the department chairs in this study frequently spoke of other negative psychological effects of the retrenchment process on staff, such as stress, burnout, alienation, and low esteem, and faulted institutional administrators for not recognizing and attending to these types of issues. This finding supports the Dickman et al. (1996) claim that universities often approach the problem of retrenchment with much technical expertise, but with little attention to the human element. That is to say, the process often focuses on budget criteria and planning procedures, rather than on the psychological impacts of the experience on individuals. However, information gathered for this study suggests that this phenomenon may be more of a reflection on the state of the retrenchment planning literature than the inherent insensitivity of institutional administrators. As was shown in Chapter 2, the bulk of the planning literature provides advice from a broad macro-institutional perspective, with little attention being paid to its implementation at the micro-institutional level.

On the whole, the findings of this study do not support the widespread contention in the higher education literature (e.g., Mingle & Norris, 1981; Zammuto, 1986; Dennison, 1987) that strategically planned retrenchment processes will necessarily be more successful than those carried out in other manners. In Chapter 6 it was pointed out that the university's strategically planned response of selective expenditure reduction, strategic resource reallocation, and private revenue generation was driven by two express intentions. The first was to adapt the institution to the reality of diminished levels of public financial support, and the second was to strengthen the institution academically over the longer term. While at this point it is premature to assess achievement of the long-term goal, the findings presented in Chapter 7 suggest that the first intention has not been realized without certain

undesirable consequences. Although the departments have been successful in reducing their operating expenditures over the short-term, most of these savings have been achieved at the expense of staff and students who have had to work more and pay more respectively for fewer rewards, and the sustainability of such an environment is questionable. As the department chairs themselves pointed out, there is currently little slack in the system; both human and material resources are under stress, and this is clearly a condition that will need to be addressed if the longer term goal of strengthening the institution academically is to be achieved. "We could continue to function [as we currently do]," concluded one department chair in the study, "but I would say that we would become extremely uncompetitive on a national basis, and certainly on an international basis, if this happens."

Selectivity, Stratification, and Resource Disparity

Two prominent studies in the U.S. (Study Group on Restructuring, Pew Higher Education Research Program, 1993; El-Khawas, 1994) suggested that as the result of the combined institutional strategies of expenditure control, new revenue generation, administrative reorganization, and program review undertaken in response to retrenchment, higher education in the United States was undergoing a realignment in the way it was financed and what programs it offered to constituents. Slaughter (1998) subsequently focused that analysis with her findings that public research universities in the U.S. generally had responded to declining public financial support by investing resources in entrepreneurial research and administration, administration in general, and the development of programs for students able to pay high tuition fees, while reducing resources devoted to instruction. Further, she found that resources were shifted away from large undergraduate fields in the public service arena such as arts, education, and nursing, and toward graduate education and fields close to corporate, research, and professional markets in the technological core of the economy such as business, the natural sciences, engineering, and mathematical and computing sciences. Noting that resources were often shifted toward departments that

were already resource-rich, Slaughter concluded that resource disparities among departments had increased, "with the rich getting richer, as it were, and the poor, poorer" (p. 225).

Evidence presented in this study suggests that similar patterns of resource allocation and stratification may be developing at the University of Alberta. The findings in Chapter 6 showed that between 1994 and 1997 the institution selectively reduced its expenditures and reallocated many of its resources. Generally, resources were invested in the administrative or non-academic units at the expense of the teaching or academic units. By 1997, annual net operating expenditures in the teaching units had dropped by more than 8%, while those in the administrative units rose by nearly 5% (see Table 6.7). Administrative costs rose because funds were redirected toward capital, information technology, the recruitment of students, fundraising, and the establishment of research-related businesses and partnerships. Further, in the teaching units, although selectivity was purportedly exercised on the basis of enrolment and academic quality, expenditure reductions in fields within the humanities and social sciences, including the Faculties of Arts and Education which are two of the three high undergraduate enrolment faculties, tended to be proportionately higher than in fields close to corporate research and professional markets, such as engineering, medicine, and the natural sciences (see Table 6.7 and Appendix H). Finally, the findings in Chapter 7 illustrated that the poor indeed were getting poorer, as the budget cuts disproportionately affected departments and faculty within the humanities and social sciences, where fewer external research funds were available to mitigate the impact of the cuts.

Slaughter (1998) suggested that revealing resource allocation practices and their patterns of effect was important because it raised questions regarding the roles and purposes of public higher education that required thoughtful debate by all constituents. For example, are private markets appropriate arbiters of what fields of knowledge merit resources in highly complex, multi-mission, non-profit institutions such as public research universities? Will the emphasis on the pursuit of external

research grants and contracts privilege the research mission at the expense of the teaching mission? If students are sought and research promoted primarily for their commercial potential, will public institutions become undifferentiated from for-profit organizations and lose their capacity to educate, experiment, and explore? Further, what might be the long-term social implications of growing disciplinary resource disparities and other patterns of stratification in higher education? The findings in this study suggest that all of these questions may appropriately be raised within the context of higher education in Alberta.

Recommendations for Practice

1. Administrators of higher education institutions are advised to closely monitor and assess conditions in the workplace when implementing retrenchment processes. As Marshall, Lincoln, and Austin (1991) have pointed out, the academic quality of an institution is directly related to the commitment, expertise, and vitality of its faculty. Institutions that direct attention to the conditions of their workplaces, and address the concerns of faculty about the institution as a place of work, are more likely to attract and retain excellent faculty.
2. Given that the substantive effects of the retrenchment process in this study were revealed primarily through interview data, it is recommended that institutions employ qualitative methods when assessing their environments and attempting to identify important institutional issues and concerns.

Recommendations for Further Research

1. The University of Alberta is only one of more than 20 public institutions of higher education affected by the changes in provincial funding policies reported in this study. Research should be conducted on these other institutions to determine if they have responded to these policies in the same manner as the University of Alberta and what the effects have been. Studies such as these will allow scholars and public policy makers to determine how the entire system of higher education

in Alberta has been affected by the new funding policies, and to incorporate this information into future theory and policy development.

2. The University of Alberta itself warrants further study to establish whether other patterns of stratification and resource disparities are emerging, and if those identified in this study have been entrenched. Additionally, an examination of what the longer-term effects of the erosion of the working and learning conditions identified in this study have been, particularly with regard to student outcomes and faculty retention and recruitment, would be informative. Finally, a study similar to this one from the perspective of students attending the institution would provide useful information into the condition of the learning environment. It is suggested that students who have returned to study at the university following the completion of a degree prior to 1994 would be able to provide insight as to how conditions have changed.
3. The effects of retrenchment on the working and learning environments of higher education institutions is an area that has not been adequately addressed in the North American retrenchment literature. More direct examinations of the experiences of individuals within institutions that are retrenching, such as the micro-institutional analysis undertaken in this study, will be necessary to determine these effects. Studies establishing if and how the condition of these environments affect student learning and other educational outcomes would be particularly informative.
4. Since the emphasis in the retrenchment planning literature is on preparing institutions of higher education for the challenges of retrenchment, the incorporation of specific advice on maintaining healthy institutional environments at the same time that budgets must be cut would improve the relevance of this body of literature to administrative practice.
5. As the review of the literature indicated, macro- and micro-institutional research on retrenchment tends to be conducted and reported separately, and findings within the two bodies of research are often inconsistent. These observations,

coupled with the fact that the substantive effects of retrenchment in this study were evident primarily at the micro-institutional level of analysis, suggest that there is a need to integrate the macro- and micro-institutional bodies of literature, and to conduct retrenchment research on institutions from more than a single perspective. Only through such an holistic approach will the impacts of retrenchment on higher education be completely revealed and understood.

REFERENCES

AASUA. (1996, December). Operation renewal: The salary challenge. *AASUA Newsletter*, p. 1.

AASUA. (1998, February). Restructuring there and here. *AASUA Newsletter*, pp. 6-9.

Alberta Advanced Education and Career Development. (1994a). *Three-year business plan*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1994b). *New directions for adult learning in Alberta*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1994c, January 18). *Major changes announced to the funding of public post-secondary institutions* [news release]. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1994d, January 28). *Letter from the Minister to the Chairman, Board of Governors, University of Alberta*. Available: Office of Budget and Statistics, University of Alberta.

Alberta Advanced Education and Career Development. (1994e, October 20). *Letter from the Minister to Chairman, Board of Governors, University of Alberta*. Available: Office of Budget and Statistics, University of Alberta.

Alberta Advanced Education and Career Development. (1994f, October 20). *Tuition fee policy*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1995a). *Annual report 1994-95*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1995b, June). *A proposed performance-based funding mechanism for Alberta's public post-secondary education system*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1995c). *Enrolment corridor policy (as amended, July 1995)*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1996a). *Annual report 1995-96*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1996b, March 29). *Over 10,000 new places created in the post-secondary education system: Access Fund exceeds goals* [news release]. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1996c, March 28). *Access Fund: Overview* [news release]. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1996d, May). *Fostering excellence: A policy framework for Alberta's university research system*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1996e, March). *1996-99 business plan*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1996f, June). *Enhancing Alberta's adult learning system through technology: Policy, guidelines and procedures for the Learning Enhancement Envelope*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1996g, June 17). *\$23 million to post-secondary education institutions for infrastructure renewal* [news release]. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1997a, July 31). *Rewarding progress towards goals: Highlights of Alberta's performance envelope funding*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1997b, July 31). *New performance funding rewards progress towards goals in post-secondary education* [news release]. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1997c, June). *1997-2000 business plan*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1997d, July). *Infrastructure renewal envelope*. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1997e, August 14). *\$105 million for infrastructure renewal: Alberta universities, public colleges and technical institutes* [news release]. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1997f, October 14). *Intellectual Infrastructure Partnership Program will strengthen research excellence and competitiveness of universities and research hospitals* [news release]. Edmonton, AB: Author.

Alberta Advanced Education and Career Development. (1997g). *Annual report 1996-97*. Edmonton, AB: Author.

Alberta on the right track. (1997, February 15). *The Economist*, p. 38.

Andrews, M. B., Holdaway, E. A., & Mowat, G. L. (1997). Postsecondary education in Alberta since 1945. In G. A. Jones (Ed.), *Higher education in Canada: Different systems, different perspectives* (pp. 59-92). New York: Garland.

Ashar, H., & Shapiro, J. Z. (1990). Are retrenchment decisions rational? The role of information in times of budgetary stress. *Journal of Higher Education*, 61 (2), 121-141.

Babcock, J. A. (1983). Adjustments to decline: A longitudinal study. *Peabody Journal of Education*, 60 (2), 79-92.

Baltes, P. C. (1987-88). Fiscal stress and implications for planning. *Planning for Higher Education*, 16 (4), 3-18.

Barak, R. J. (1981). Program evaluation as a tool for retrenchment. In James R. Mingle and Associates, (Eds.). *Challenges of retrenchment: Strategies for consolidating programs, cutting costs, and reallocating resources* (pp. 212-225). San Francisco: Jossey-Bass.

Bloomfield, S. D. (1993). Facilitating decisions under scarcity. *New Directions for Institutional Research* (79), 59-72.

Boothe, P. (1997). The new approach to budgeting in Alberta. In C. J. Bruce, R. D. Kneebone, & K. J. McKenzie (Eds.), *A government reinvented: A study of Alberta's deficit elimination program* (pp. 216-230). Don Mills, ON: Oxford University Press.

Bowen, F. M., & Glenny, L. A. (1980). *Uncertainty in public higher education: Response to stress at ten California colleges and universities*. Sacramento, CA: The California Postsecondary Education Commission.

Boyd, W. L. (1979). Retrenchment in American education: The politics of efficiency. Paper presented at the American Educational Research Association Meeting, San Francisco.

Bruce, C. J., Kneebone, R. D., & McKenzie, K. J. (Eds.). (1997). *A government reinvented: A study of Alberta's deficit elimination program*. Don Mills, ON: Oxford University Press.

Cameron, K. (1983). Strategic responses to conditions of decline: Higher education and the private sector. *Journal of Higher Education*, 54 (4), pp. 359-380.

Campbell, S. D. (1982). Responses to financial stress. *New Directions for Higher Education*, 10 (2), 7-16.

Chabotar, K. J. & Honan, J. P. (1990). Coping with retrenchment: Strategies and tactics. *Change*, 22 (6), 28-34.

Chaffee, E. E. (1984). Successful strategic management in small private colleges. *Journal of Higher Education*, 55, 212-241.

Chaffee, E. E. (1985). The concept of strategy: From business to higher education. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research, Volume I*, (pp. 133-172). New York: Agathon Press.

Christ-Janer, Arland F. (1980). Institutional mission in an era of retrenchment: St. Stephen's College. *Liberal Education*, 66, 161-168.

Clarke, G. G. (1986). The effects of financial restraint on Canadian universities: The Ontario case. *International Journal on Institutional Management in Higher Education*, 10 (3), 219-229.

Cunningham, J. B. (1997). Case study principles for different types of cases. *Quality & Quantity*, 31, 401-423.

Cutt, J. (1992). University response in Canada: A proposed approach. In J. Cutt & R. Dobell, (Eds.), *Public purse, public purpose: Autonomy and accountability in the groves of academe* (pp. 151-156). Ottawa: The Institute for Research on Public Policy.

Cutt, J., & Dobell, R. (Eds.). (1992). *Public purse, public purpose: Autonomy and accountability in the groves of academe*. Ottawa: The Institute for Research on Public Policy.

Dallam, S., & Hoyt, D. P. (1983). Faculty and department head preferences for dealing with retrenchment demands. *Research in Higher Education*, 19 (4), 407-421.

Dennison, J. D. (1987). Universities under financial crisis: The case of British Columbia. *Higher Education*, 16, 135-143.

Dickman, M. M., Fuqua, D.R., Coombs, W. T., & Seals, J. M. (1996). Downsizing in higher education: Institutional budget reduction priorities and strategies. *Journal of College Student Development*, 37 (4), 457-467.

Dougherty, E. A. (1981). Evaluating and discontinuing programs. In James R. Mingle and Associates, (Eds.). *Challenges of retrenchment: Strategies for consolidating programs, cutting costs, and reallocating resources* (pp. 69-87). San Francisco: Jossey-Bass.

Dube, C. S., & Brown, A. W. (1983). Strategic assessment--a rational response to university cutbacks. *Long Range Planning*, 16 (2), 105-113.

Dunn, J. A. (1992). Retrench or else: Public and private institutional responses. *New Directions for Institutional Research* (75), 5-21.

El-Khawas, E. (1994). Restructuring initiatives in public higher education: Institutional response to financial constraints. *Research Briefs*, 5 (8), 1-7.

Ell, J. F. (1988). *Faculty perceptions of financial constraint in universities*. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Emery, J. C. H. (1997). New directions? Government spending cuts and Alberta's institutional resilience in advanced education. In C. J. Bruce, R. D. Kneebone, & K. J. McKenzie, (Eds.), *A government reinvented: A study of Alberta's Deficit Elimination Program* (pp. 340-368). Don Mills, ON: Oxford University Press.

Falk, D. S., & Miller, G. R. (1993). How do you cut \$45 million from your institution's budget? Use processes and ask your faculty. *Educational Record*, 74 (4), 32-38.

Franklin, P. (1982). Institutional strategies: Duke University. *Educational Record*, 63 (3), 34-38.

Gappa, J. M. (1993). Participants in decisions about scarce resources. *New Directions for Institutional Research* (79), 73-83.

Gardner, C., Warner, T. R., & Biedenweg, R. (1990). Stanford and the railroad: Case studies of cost cutting. *Change*, 22 (6), 23-27.

Glenny, L. A., & Bowen, F. M. (1981). Warning signals of distress. In James R. Mingle and Associates, (Eds.). *Challenges of retrenchment: Strategies for consolidating programs, cutting costs, and reallocating resources* (pp. 32-46). San Francisco: Jossey-Bass.

Goedegebuure, L., Kaiser, F., Maassen, P., & de Weert, E. (1993). Higher education policy in international perspective: An overview. In Goedegebuure, L., Kaiser, F., Maassen, P., Meek, L., van Vught, F., & de Weert, E. (Eds.). *Higher education policy: An international perspective*, pp. 1-12. New York: Pergamon.

Goedegebuure, L., Kaiser, F., Maassen, P., Meek, L., Van Vught, F., & de Weert, E. (1993). International perspectives on trends and issues in higher education policy. In Goedegebuure, L., Kaiser, F., Maassen, P., Meek, L., van Vught, F., & de Weert, E. (Eds.). *Higher education policy: An international perspective*, pp. 315-348. New York: Pergamon.

Government of Alberta. (1994). *A better way: A plan for securing Alberta's future*. Edmonton, AB: Author.

Guba, E. G. (1984). The effect of definitions of *policy* on the nature and outcomes of policy analysis. *Educational Leadership*, 42, 63-70.

Guskin, A. E. (1996). Facing the future: The change process in restructuring universities. *Change*, 28 (4), 27-37.

Hardy, C. (1984). The management of university cutbacks: Politics, planning and participation. *The Canadian Journal of Higher Education*, 14 (1), 59-69.

Hardy, C. (1987). Using content, context, and process to manage university cutbacks. *The Canadian Journal of Higher Education*, 17 (1), 65-82.

Hardy, C. (1987-88). Turnaround strategies in universities. *Planning for Higher Education*, 16 (1), 9-23.

Hardy, C. (1988). The rational approach to budget cuts: One university's experience. *Higher Education*, 17, 151-173.

Hardy, C. (1990a). 'Hard' decisions and 'tough' choices: The business approach to university decline. *Higher Education*, 20, 301-321.

Hardy, C. (1990b). Strategy and context: Retrenchment in Canadian universities. *Organization Studies*, 11 (2), 207-237.

Hardy, C. (1996). *The politics of collegiality: Retrenchment strategies in Canadian universities*. Kingston, ON: McGill-Queen's University Press.

Haughey, D. J. (1994, May). *Strategic planning and the reform of higher education*. Paper presented at the culminating research conference of the Canada-China Linkage University Program, University of Beijing, Beijing, China.

Hay, D. A., & Basran, G. S. (1991). State policy and educational change: Crisis in post-secondary education. In T. Wotherspoon, (Ed.), *Hitting the books: The politics of educational retrenchment* (pp. 35-58). Toronto: Garamond.

Hoffman, R. B. (1992). Repositioning for the future: Franklin and Marshall College. *New Directions for Institutional Research* (75), 89-101.

Hollins, C. S. (1992). Where do we go from here? *New Directions for Institutional Research* (75), 115-119.

Huberman, A.M., & Miles, M.B. (1994). Data management and analysis methods. In N.K. Denzin & Y.S. Lincoln, (Eds.), *Handbook of qualitative research* (pp. 428-444). Thousand Oaks, CA: Sage.

Hyatt, J. A. (1993). Strategic restructuring: A case study. *New Directions for Institutional Research* (83), 35-42.

Jones, G. A. (1990). Imminent disaster revisited, again: The crisis literature of Canadian higher education. *The Canadian Journal of Higher Education*, 20 (2), 1-4.

Jones, G. A. (1991). Modest modifications and structural stability: Higher education in Ontario. *Higher Education*, 21, 573-587.

Jonsen, R. W. (1984). Small colleges cope with the eighties: Sharp eye on the horizon, strong hand on the tiller. *Journal of Higher Education*, 55, 171-183.

Kerlin, S. P., & Dunlap, D. M. (1993). For richer, for poorer: Faculty morale in periods of austerity and retrenchment. *Journal of Higher Education*, 64 (3), 348-377.

Kissler, G. R. (1997). Who decides which budgets to cut? *Journal of Higher Education*, 68 (4), 427-459.

Knepp, M. G. (1992). Renewal in the 1990s: The University of Michigan initiatives. *New Directions for Institutional Research* (75), 77-87.

Kotler, P., & Murphy, P. E. (1981). Strategic planning for higher education. *Journal of Higher Education*, 52 (5), 470-489.

Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.

Laxer, G., & Harrison, T. (Eds.). (1995). *The Trojan horse: Alberta and the future of Canada*. Montreal, PQ: Black Rose Books.

Levin, J. S., & Dennison, J.D. (1989). Responsiveness and renewal in Canada's community colleges: A study of change in organizations. *The Canadian Journal of Higher Education*, 19 (2), 41-57.

Levine, C. H. (1979). More on cutback management: Hard questions for hard times. *Public Administration Review*, 39 (2), 179-183.

Lisac, M. (1995). *The Klein revolution*. Edmonton, AB: NeWest Press.

Marino, J. (1995). Clearcutting in the groves of academe. In G. Laxer & T. Harrison, (Eds.), *The Trojan horse: Alberta and the future of Canada* (pp. 209-222). Montreal, PQ: Black Rose Books.

Marshall, C., Lincoln, Y., & Austin, A. (1991). Integrating a qualitative and quantitative assessment of the quality of academic life: Political and logistical issues. *New Directions for Institutional Research*, 72, 65-80.

McKinley, W., Cheng, J. L. C., & Schick, A. G. (1986). Perceptions of resource criticality in times of resource scarcity: The case of university departments. *Academy of Management Journal*, 29 (3), 623-632.

Meek, V.L., Goedegebuure, L., Kivinen, O., & Rinne, R. (1991). Policy change in higher education: Intended and unintended outcomes. *Higher Education* 21, 451-459.

Melchiori, G. S. (1982). Smaller and better: The University of Michigan experience. *Research in Higher Education*, 16, 55-69.

Merriam, S. B. (1988). *Case study research in education: A qualitative approach*. San Francisco: Jossey-Bass.

Michael, S. O., & Holdaway, E. A. (1992). Entrepreneurial activities in postsecondary education. *The Canadian Journal of Higher Education*, 55, 15-40.

Mingle, J. R., & Norris, D. M. (1981). Institutional strategies for responding to decline. In J. R. Mingle & Associates. (Eds.). *Challenges of retrenchment: Strategies for consolidating programs, cutting costs, and reallocating resources*, (pp. 47-68). San Francisco: Jossey-Bass.

Morgan, A. W. (1982). College and university planning in an era of contraction. *Higher Education*, 11, 553-566.

Morse, J. M. (1994). Designing funded qualitative research. In N.K. Denzin & Y.S. Lincoln, (Eds.), *Handbook of qualitative research* (pp. 220-235). Thousand Oaks, CA: Sage.

Mortimer, K. P., & Tierney, M. L. (1979). *The three "R's" of the eighties: Reduction, reallocation and retrenchment*. Washington, DC: American Association for Higher Education.

Ogle, A. (1998, January 18). U of A fund-raising tops \$106M. *The Edmonton Journal*, p. A6.

Pannu, R. S., & Decore, A. (1991). Alberta political economy in crisis: Whither education? In T. Wotherspoon, (Ed.), *Hitting the books: The politics of educational retrenchment* (pp. 75-97). Toronto: Garamond.

Patton, M. Q. (1990) *Qualitative evaluation and research methods*. Newbury Park, CA: Sage.

Pawlak, S. (1992). *Faculty perceptions of financial constraint in public colleges and technical institutes*. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Peterson, M.W., Dill, D.D., Mets, L. A., & Associates. (Eds.). (1997). *Planning and management for a changing environment: A handbook on redesigning postsecondary institutions*. San Francisco: Jossey-Bass.

Phillips, E. C., Morell, C., & Chronister, J. L. (1996). Responses to reduced state funding. *New Directions for Higher Education* (94), 9-19.

Powers, D. R. (1982). Reducing the pain of retrenchment. *Educational Record*, 63 (3), 8-12.

Province of Alberta. (1994). *Universities Act* [Revised Statutes of Alberta 1980, Chapter U-5 with amendments in force as of January 1, 1994 not including unproclaimed amendments. Consolidated January 20, 1994]. Edmonton, AB: Author.

Rae, P. (1996). New Directions: Privatization and higher education in Alberta. *The Canadian Journal of Higher Education*, 26 (2), 59-80.

Rhoades, G. (1993). Retrenchment clauses in faculty union contracts: Faculty rights and administrative discretion. *Journal of Higher Education*, 64 (3), 312-347.

Riffel, A. J. (1994). The struggle to find a future: Money, politics, and leadership in universities. *The Canadian Journal of Higher Education*, 23 (2), 115-123.

Robb, M. (1996, September 6). Internal fundraising campaign well on its way. *Folio*, 34 (1), 3.

Robb, M. (1997, April 4). University's largest campaign off the ground. *Folio*, 34 (15), 7.

Rubin, I. (1979). Retrenchment, loose structure, and adaptability in the university. *Sociology of Education*, 52, 211-22.

Schwandt, T. A. (1997). *Qualitative inquiry: A dictionary of terms*. Thousand Oaks, CA: Sage.

Schwerin, U. C. (1980). Institutional mission in an era of retrenchment: New York City Community College, CUNY. *Liberal Education*, 66, 169-176.

Sibley, W. M. (1993). The university in the 1990s: Crisis or predicament? *The Canadian Journal of Higher Education*, 23 (1), 114-132.

Simons, P. (1996, September 19). Best students pass on U of A. *The Edmonton Journal*, p. B3.

Skolnik, M. L. (1986). If the cut is so deep, where is the blood? Problems in research on the effects of financial restraint. *The Review of Higher Education*, 9 (4), 435-455.

Skolnik, M. L. (1987). The shell game called system rationalization: The politics and economics of retrenchment in the Ontario university system. *Higher Education*, 16, 155-171.

Skolnik, M. L. (1997). Putting it all together: Viewing Canadian higher education from a collection of jurisdiction-based perspectives. In G.A. Jones (Ed.). *Higher education in Canada: Different systems, different perspectives*. New York: Garland.

Skolnik, M. L., & Rowen, N. S. (1984). *Please, sir, I want some more: Canadian universities and financial restraint*. Toronto: OISE Press.

Slaughter, S. (1993). Retrenchment in the 1980s: The politics of prestige and gender. *Journal of Higher Education*, 64 (3), 250-282.

Slaughter, S. (1995). Criteria for restructuring postsecondary education. *Journal for Higher Education Management*, 10 (2), 31-44.

Slaughter, S. (1998). Federal policy and supply-side institutional resource allocation at public research universities. *Review of Higher Education*, 21 (3), 209-244.

Slaughter, S., & Skolnik, M. L. (1987). Continued efforts to cope with declining resources: Selected post-secondary education systems in the United States and Canada, an introductory essay. *Higher Education*, 16, 125-134.

Small, J. M. (1994). Reform in Canadian universities. *The Canadian Journal of Higher Education*, 24 (2), 1-15.

Small, J. M. (1995). Reform in higher education in Canada. *Higher Education Quarterly*, 49 (2), 113-127.

Stager, D.A.A. (1992). Financing universities in Canada. *Higher Education in Europe*, 27 (1), 132-140.

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

Study Group on Restructuring, Pew Higher Education Research Program. (1993). Toward restructuring: Assessing the impact of budgetary constraints on college and university operations. *Policy Perspectives*, 4 (4), 7B-16B.

University of Alberta. (1983, June 20). *Letter from Chairman, Board of Governors to Minister, Advanced Education re: 1984/85 operating grant request*. Available: Office of VP (Finance & Administration), University of Alberta.

University of Alberta. (1984, January 12). *Memo from VP (Finance & Administration) to GFC Planning & Priorities Committee re: position control and base budget reductions*. Available: Office of VP (Finance & Administration), University of Alberta.

University of Alberta. (1986, March). *The next decade and beyond: A plan for the future*. Edmonton, AB: Author.

University of Alberta. (1986-89). *Report on the preparation of the operating budget to Board of Governors Finance Committee* [annual internal correspondence from the office of VP (Finance & Administration)]. Available: Office of VP (Finance & Administration), University of Alberta.

University of Alberta. (1990-93). *Summary of proposed budget presented to the Board of Governors* [annual internal correspondence from the office of VP (Finance & Administration)]. Available: Office of Budget & Statistics, University of Alberta.

University of Alberta. (1991-96a). *Reports of Board of Governors' meetings to General Faculties Council* [internal correspondence]. Available: University Secretariat, University of Alberta.

University of Alberta. (1991-96b). *Annual reports of the GFC Academic Development Committee (ADC) to General Faculties Council* [internal correspondence]. Available: University Secretariat, University of Alberta.

University of Alberta. (1991a, February). *Maintaining excellence and accessibility in an environment of budgetary restraint*. Edmonton, AB: Author.

University of Alberta. (1991b, November). *Making choices: Annual report of the President 1990-91*. Edmonton, AB: Author.

University of Alberta. (1992a, August 13). *Tax summary* [internal correspondence]. Available: Office of Budget & Statistics, University of Alberta.

University of Alberta. (1992b, May). *Key issues facing the University of Alberta*. Edmonton, AB: Author.

University of Alberta. (1993a, April). *Degrees of freedom (draft report)*. Edmonton, AB: Author.

University of Alberta. (1993b, November). *Degrees of freedom: A strategic plan for the University of Alberta to the year 2005*. Edmonton, AB: Author.

University of Alberta. (1994a, February). *Quality first*. Edmonton, AB: Author.

University of Alberta. (1994b). *Annual report of the GFC Academic Development Committee (ADC) to General Faculties Council (GFC) for the calendar year 1994* [internal correspondence]. Available: University Secretariat, University of Alberta.

University of Alberta. (1994c). *Summary of proposed budget presented to the Board of Governors* [internal correspondence from the office of VP (Finance & Administration)]. Available: Office of Budget & Statistics, University of Alberta.

University of Alberta. (1994d). *Data book 1993-94*. Edmonton, AB: Author.

University of Alberta. (1994e). *Financial statements and supplementary schedules for the year ended March 31, 1994*. Edmonton, AB: Author.

University of Alberta. (1994f). *1994-95 operating and capital budget estimates* [internal report prepared by the office of VP (Finance & Administration)]. Available: Office of Budget and Statistics, University of Alberta.

University of Alberta. (1994g, February 10). *Memo from VP (Academic) and VP (Finance & Administration) to Deans, Department Chairs, and Directors regarding early retirements; academic staff* [unpublished inter-departmental correspondence]. Available: Office of Budget and Statistics, University of Alberta.

University of Alberta. (1994h). *Three year business plan, University of Alberta, 1994*. Edmonton, AB: Author.

University of Alberta. (1995). *Data book 1994-95*. Edmonton, AB: Author.

University of Alberta. (1995b). *Financial statements and supplementary schedules for the year ended March 31, 1995*. Edmonton, AB: Author.

University of Alberta. (1995c). *1995-96 budget plan* [internal report prepared by the office of VP (Finance & Administration)]. Available: Office of Budget and Statistics, University of Alberta.

University of Alberta. (1995d). *Three year business plan, University of Alberta, 1995*. Edmonton, AB: Author.

University of Alberta. (1995e, April 7). *Faculty renewal early retirement program*. Edmonton, AB: Author.

University of Alberta. (1995f, February 22). *Draft memo from Acting VP (Academic) to Deans' Council/President's Advisory Committee of Chairs regarding Faculty Renewal Early Retirement Incentives program* [unpublished interdepartmental correspondence]. Available: Office of Budget and Statistics, University of Alberta.

University of Alberta. (1995g, April). *Celebrate too! The strategic initiatives of the Office of the Vice-President (Research)*. Edmonton, AB: Author.

University of Alberta. (1996a). *Data book 1995-96*. Edmonton, AB: Author.

University of Alberta. (1996b). *General Faculties Council policy manual* [internal correspondence]. Available: University Secretariat, University of Alberta.

University of Alberta. (1996c, December 18). *Restructuring of faculties and departments for the period 1990-1996* [internal correspondence]. Available: University Secretariat, University of Alberta.

University of Alberta. (1996d). *Financial statements and supplementary schedules for the year ended March 31, 1996*. Edmonton, AB: Author.

University of Alberta. (1996e). *Recommended 1996-97 budget* [internal report prepared by the office of VP (Finance & Administration)]. Available: Office of Budget and Statistics, University of Alberta.

University of Alberta. (1996f). *University of Alberta business plan 1996*. Edmonton, AB: Author.

University of Alberta. (1996g). *These are the days! The strategic initiatives of the Office of the Vice-President (Research and External Affairs)*. Edmonton, AB: Author.

University of Alberta. (1997a). *Facts about the University of Alberta* [On-line]. Available: <http://www.cs.ualberta.ca/Ualberta/Welcome/Facts.html>.

University of Alberta. (1997b). *1997/98 calendar*. Edmonton, AB: Author.

University of Alberta. (1997c). *What the secretariat does* [On-line]. Available: <http://www.ualberta.ca/~unisecr/whatwedo.html>.

University of Alberta. (1997d). *General Faculties Council policy manual* [On-line]. Available: <http://www.ualberta.ca/~unisecr/manual.html>.

University of Alberta. (1997e). *Financial statements and supplementary schedules for the year ended March 31, 1997* [unpublished]. Available: Office of the Comptroller, University of Alberta.

University of Alberta. (1997f). *Data book 1996-97*. Edmonton, AB: Author.

University of Alberta. (1997g). *These are the days we'll remember! (Hina na ho): The strategic initiatives of the Office of the Vice-President (Research and External Affairs)*. Edmonton, AB: Author.

University of Alberta. (1997h). *University of Alberta campaign* [on-line]. Available: <http://www.ualberta.ca/~developo/campaign/goal.html>.

University of Alberta. (1998a). *Historical actual revenues*. [internal report prepared by the Office of Budget and Statistics]. Available: Office of Budget and Statistics, University of Alberta.

Volkwein, J. F. (1984). Responding to financial retrenchment: Lessons from the Albany experience. *Journal of Higher Education*, 55 (3), 389-401.

Whetton, D. A. (1981). Organizational responses to scarcity: Exploring the obstacles to innovative approaches to retrenchment in education. *Educational Administration Quarterly*, 17 (3), 80-97.

Williams, D., Olswang, S., & Hargett, G. (1986). A matter of degree: Faculty morale as a function of involvement in institutional decisions during times of financial stress. *The Review of Higher Education*, 9 (3), 287-301.

Wolcott, H. F. (1994). *Transforming qualitative data: Description, analysis, and interpretation*. Thousand Oaks, CA: Sage.

Wotherspoon, T. (1991). Educational reorganization and retrenchment. In T. Wotherspoon, (Ed.), *Hitting the books: The politics of educational retrenchment* (pp. 15-34). Toronto: Garamond.

Yin, R. K. (1994). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

Zammuto, R.F. (1986). Managing decline in American higher education. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research, Volume II* (pp. 43-84). New York: Agathon Press.

Zemsky, R., & Massy, W. F. (1990). Cost containment: Committing to a new economic reality. *Change*, 22 (6), 16-22.

APPENDICES

Appendix A:

Letter of Request to Participate

14 March 1997

[Name]
[Department]
University of Alberta
Edmonton, Alberta
Postal Code

Dear [Name]:

I am writing to request your participation in a research project examining the impact of recent funding cuts on operations at the University of Alberta. As you know, provincial funding of higher education in Alberta has undergone significant change since 1994, as Advanced Education and Career Development has implemented rapid large-scale reductions in higher education funding and linked funding to institutional performance. To date, no studies have examined how institutions of higher education in Alberta have responded and adjusted to these changes. The generation of such knowledge is critical to the future administration and health of the Alberta higher education system.

The research project is being conducted by Ms. Colleen Judge, a doctoral candidate in Educational Policy Studies at the University of Alberta. I am Colleen's supervisor. The intent of the study is to assess the impact of funding cuts on operations at the University of Alberta from both macro- and micro-institutional perspectives. The participation of a sample of department chairs--or deans in non-departmentalized faculties--is required to obtain the micro-institutional perspective. Such participation would involve each department chair/dean completing a 45-minute audio-taped interview with Colleen. Departments in the sample were selected on the basis of representativeness, involvement in amalgamations, and the extent of budget cuts. Colleen prepared the detailed budgetary analyses under the supervision of Bill Cairns, Director of the Office of Budget and Statistics. Dr. Eugene Lechelt, Chair of Chairs' Council, assisted in the selection of administrators to be interviewed. The study has been approved by our departmental Ethics Review Committee, and confidentiality and anonymity are assured.

I hope that you will agree to participate in this important study. Colleen will be contacting you by telephone during the first week of April to answer any questions that you may have, and to arrange a convenient time for the interview.

Thank you in advance for your consideration of this request.

Yours sincerely,

E. A. Holdaway
Professor

Appendix B:
Letter of Consent to Participate

Colleen A. Judge
11103 - 46 Avenue
Edmonton, Alberta
T6H 0A2

[Date]

[Name]

[Department]

University of Alberta

Edmonton, Alberta

[Postal Code]

Dear [Name]:

Re: Consent to participate in the study on the impact of funding cuts on operations at the University of Alberta since 1994

Following our recent discussion during which you agreed to participate in the above-noted study, I am requesting that you acknowledge your consent by signing this letter. I have provided two copies so that you can retain one for your records.

As a participant in this study you will be required to complete one 45-minute audio-taped interview with me at a mutually convenient time and location. You may withdraw your consent to participate in this study at any time. You are also granted veto rights over the transcript of the interview that you participate in. A copy of the transcript will be forwarded to you to allow you to check its accuracy and decide if you would like to exercise your right of veto. Should you decide to exercise either your "opt-out" or "veto" right, you may do so by telephoning me at 436-0531, e-mailing me at cjudge@gpu.srv.ualberta.ca, or writing to me at the above address.

Confidentiality and anonymity are assured. Your name and department will not be revealed to persons outside of the doctoral committee. In the dissertation, your name and department name will be altered to protect your identity, and information about you and your department will be presented in a general manner. If you desire, you will be provided with a copy of the dissertation findings and conclusions arising from your participation for your approval prior to the final oral examination.

Thank you for agreeing to participate in this study.

Yours sincerely,

Colleen Judge

I, [Name], acknowledge that I consent to participate in the study described above.

Signed: _____

Date: _____

Appendix C:
Interview Guide

1. Request information about professional experience:

- How long have you been the chair of this department?
 - How long have you been a faculty member in this department or at the University of Alberta?
 - What did you do prior to becoming a faculty member at the University of Alberta?
2. Provide the chair with the summary of annual expenditures between 1994-96 for his/her department and faculty and total university faculties.
3. Discuss the differences in levels of expenditures between the department, the faculty, and total faculties.
4. Discuss the specifics of the departmental expenditures (e.g., the five accounts: operating, conditional, sponsored research, special purposes, capital; how the cuts in the operating expenditure category were achieved).
5. How has institutional retrenchment affected your department in terms of these aspects:

Academic Staff

- the number and composition of academic staff employed (e.g., normal retirements, early retirements, replacements, rank and tenure status, quality of retired staff, quality of new staff recruited)

Programming and Instruction

- the teaching responsibilities of academic staff (e.g., staff to course ratio, staff to student ratio, number of teaching hours)
- programming (e.g., the number and kind of programs offered, the number and kind of classes offered, size of classes, differences between undergraduate and graduate programs)
- the quality of educational programs offered by your department today compared to pre-1994

Research

- amount and kind of research being conducted
- funds available for research and research assistance
- does the majority of research sponsorship come from internal or external sources
- who takes the initiative for procuring external research funding (the department or individual faculty members)
- the quality of research undertaken in your department today compared to pre-1994

Support Staff

- the number and responsibilities of clerical staff employed
- the number and responsibilities of technical staff employed

Student Enrolments

- undergraduate and graduate student enrolments (e.g., are numbers up or down, are there departmental enrolment objectives/limits, recruitment efforts, composition of graduate students - Canadian vs. international)

Support Services

- academic support (e.g., the provision of teaching or research assistants, clerical and technical support, equipment)
- student support (e.g., the provision of teaching or research assistantships, other kinds of funding, equipment, supervision)

Facilities, Equipment and Supplies

- facilities and equipment (e.g., level of provision, condition of)
- supplies (level of provision)

Administration

- your responsibilities as department chair (e.g., number of hours devoted to administrative matters)
- administrative processes (e.g., decision making, planning, implementation) Is the departmental budget process different when the annual budget decreases than when it increases?

6. In what other aspects has retrenchment affected your department?
7. What are your thoughts on how retrenchment has affected the University of Alberta as a whole? (e.g., status, reputation, etc.)
8. Are there any other comments you would like to make?

Appendix D:

Letter Requesting the Participants to Review the Interview Transcripts

Colleen A. Judge
Dept. of Educational Policy Studies
7-104 Education North
University of Alberta
Edmonton, Alberta
T6G 2G5

August 29th, 1997

[Name]
[Department]
University of Alberta
Edmonton, Alberta
[Postal Code]

Dear [Name]:

Re: Study on the impact of funding cuts on operations at the University of Alberta

Attached is a copy of the transcript of the interview that you completed with me in April of this year for the above-noted study. Would you please review the transcript and advise me if there are any comments in it that misrepresent your views or that you would not like included in the analysis? I can be reached by telephone at 436-0531, by e-mail at cjudge@gpu.srv.ualberta.ca, or in writing at the above address.

Please note that this copy of the transcript is an unedited, verbatim account of the interview. Should any of your comments be quoted in the study, they will be edited. Additionally, any names mentioned or comments made which may identify you or your department will be changed if those sections are quoted or referred to.

Please contact me by September 30th, 1997 if you have any concerns with the transcript. If you do not contact me by that time, I will assume that you have no objections to the transcript being included in the study.

Once again, thank you for your participation.

Yours sincerely,

Colleen Judge

Appendix E:

**Letter Requesting Selected Participants to Review Their Interview
Comments Selected for Quotation in the Study**

Colleen A. Judge
Dept. of Educational Policy Studies
7-104 Education North
University of Alberta
Edmonton, Alberta
T6G 2G5

June 4, 1998

[Name]
[Department]
University of Alberta
Edmonton, Alberta
[Postal Code]

Dear [Name]:

Re: Study on the impact of funding cuts at the University of Alberta

Upon reviewing the transcript of the interview you completed with me for the above-noted study, you indicated that you would like to see the edited version of any of your comments that I would like to quote in the study prior to its completion.

Consequently, I have attached a list of these comments for your approval. Please keep in mind that at no time are you or your department identified in the study. Each of the participating department chairs is referred to by the pseudonym of "Chair" coupled with a letter of the alphabet corresponding to the sequence in which the interviews occurred (e.g., Chair A, Chair B, Chair C), and any potentially identifying characteristics have been either omitted or disguised.

Would you please review the attached comments and advise me by July 1st if they are satisfactory to you? I can be reached by telephone at 436-0531 or e-mail at cjudge@gpu.srv.ualberta.ca.

Once again, thank you for your participation in this study.

Sincerely,

Colleen Judge

Appendix F:

***Summary of Degrees of Freedom: A Strategic Plan for the University of Alberta
to the Year 2005 (University of Alberta, 1993b)***

Summary of Degrees of Freedom: A Strategic Plan for the University of Alberta to the Year 2005 (University of Alberta, 1993b)

MISSION: The mission of the University of Alberta is to serve our community by the dissemination of knowledge through teaching and the discovery of knowledge through research. The mission will be carried out in a select number of fields and professions, to be determined within the context of a province-wide educational system and based upon the highest national and international standards.

PRINCIPLES: Excellence; Pursuit of truth; Scholarship; Selectivity; Accountability; Accessibility and cooperation; Partnership; Innovation; Campus community.

VISION: In the year 2005, the University of Alberta is the leading Canadian university and a major international university in a select number of teaching and research areas. Accordingly, a University of Alberta degree is acknowledged as a respected degree in a variety of areas, the leading degree in Canada in a number of areas, and one of the leading degrees in the world in a few areas.

STRATEGIC INITIATIVES AND RECOMMENDATIONS:

Attracting and satisfying outstanding undergraduate students

Initiative 1: Evaluation of teaching and programs

1. Establish a program of exit surveys of all graduating undergraduate students. Results of these surveys will be made public and be used to identify strengths and weaknesses in the education programs.
2. Adopt a policy that includes, as one element in a multifaceted evaluation of teaching, a universal student rating of instruction for all undergraduate courses, including a summary of results for each course section to be made available to students. The primary purpose of student ratings is to support and enhance good teaching by providing information regarding student responses to instruction.
3. Compile and make public, annually, data on the experience of students who first registered in first-year undergraduate studies five years earlier, showing how many have graduated and how many have left the University, and, where possible, providing the reasons.
4. Report regularly on the national standings of those educational programs that are accredited by an external agency or where national exams are given to graduates of the programs.

Initiative 2: First-year experience

5. Establish a first-year experience program in each Faculty, designed to provide students in their first year at the University of Alberta with information and assistance that will help them make the successful transition to University life.

Initiative 3: Delivery of programs and courses

6. Develop alternative combinatory methods of offering undergraduate programs, such as the 1 + 3 model in the Faculty of Business (one year in Arts or Science followed by three years in Business) and the 2 + 2 model in the Faculty of Education (two years in Arts or Science followed by two years in Education).
7. Develop plans for encouraging an increasing percentage of our Alberta undergraduate students to begin their studies at a transfer college.

8. Devise a system for better allocation of time slots in the teaching timetable in order to facilitate more efficient use of physical resources and allow students a wider choice of hours for scheduling their classes.
9. Consider establishing programs in which a student could earn an undergraduate degree with courses given at night and on weekends.
10. Review the number and mix of courses currently offered at the University of Alberta with the objective of reducing duplication and of eliminating courses which are seldom given or for which there is insufficient student interest.

11. Establish the use of video and computer technology for the delivery of courses on and off campus.

Initiative 4: Recruitment of outstanding undergraduate students

12. Establish an aggressive recruitment program targeting the most qualified students in Alberta and some of the most qualified students in Canada. This program should include identification of qualified students, provision of educational program information, early admission decisions, and attractive scholarship programs.

Attracting and satisfying outstanding graduate students

Initiative 5: Development of strength in graduate education

13. Develop a process for evaluating the quality of graduate programs. This evaluation process should include the establishment of an exit survey of all graduating graduate students that would provide information on the quality of courses and graduate supervision. The evaluation findings should form the basis of a review of the suitability, size, and depth of the University's various graduate programs, relative to the research base available for them, with a view to supporting only programs of superior quality.
14. Establish a program of scholarship support for outstanding foreign graduate students to mitigate the effect of differential fees.
15. Establish interdepartmental, interdisciplinary, collaborative efforts for faculty teaching in fields where the University offers an undergraduate program but no graduate program. Initiatives such as adjunct professorial appointments and shared laboratory facilities and library collections should be explored to ensure that students and staff associated with these undergraduate education programs have the benefits of a research environment to support scholarship in their disciplines.

Meeting the research needs of the future

Initiative 6: Accountability of research performance

16. Establish the research evaluation criteria and data to be collected and monitored and upon which resource allocations will be based. These criteria may vary across units depending on the relevant indicators identified by the various communities within the University.

Initiative 7: Identifying areas of research excellence

17. Identify the areas of research within each Faculty that rank among the best in Canada or internationally. Part of the identification process should include establishing the criteria and collecting the evidence used to identify specific areas of research excellence. Develop an appropriate process to validate these assessments.

Initiative 8: Fostering new areas of research

18. Identify ways to foster areas of emerging research at the national or international level that match the expertise in the University, including particularly the growing opportunities for interdisciplinary research among Faculties and departments.

Meeting communities' needs

Initiative 9: Lifelong learning

19. Review and revise, where appropriate, the current course registration policies to permit increased access of the community to educational course offerings.
20. Develop innovative methods to permit the community increased access to the University.

Initiative 10: Telecommunications: networking the world

21. Develop a strategy to ensure that the University of Alberta is networked and ready to access effectively Provincial, national, and international telecommunications networks.

Initiative 11: Strengthening knowledge transfer

22. Encourage and enhance knowledge transfer to various communities. Indicators of increased knowledge transfer, such as the number of concerts performed or patents filed, will be developed and monitored by the Faculties and reported on an annual basis. Particular interest will be directed to the potential of such knowledge transfer on the economies, social services, and cultural life of Edmonton and Alberta to enhance the development of a knowledge-based society.

Initiative 12: International affairs

23. Review and bring forward a proposal for the coordination and organization of an international orientation at the University of Alberta. Activities that might be included in such a proposal include student exchanges, curriculum development, language and cultural instruction, research exchanges, and economic and industrial initiatives.

Attracting and retaining outstanding faculty

Initiative 13: Academic leadership

24. Review the selection and evaluation procedures for Deans and Chairs to improve our ability to attract and retain the most outstanding academic leaders with distinguished records of excellence in teaching and research.

Initiative 14: Hiring incentives

25. Identify research start-up funds as an important initiative in the University's private fundraising efforts and as a high priority for the University's portion of the revenue originating from royalties and patent recovery.

Initiative 15: Faculty performance, expectations, and rewards

26. Identify the strengths of each faculty member and assign academic responsibilities accordingly, with the understanding that all full-time tenure track faculty members should have a teaching assignment at the undergraduate level. The academic expectations for individual faculty members might vary from year to year, but should be based on the department's needs and the faculty member's abilities. In this regard, the department would be working as a team with each member contributing, through differential teaching and research responsibilities, to a collective productivity.
27. Review Faculty standards for tenure, salary, and promotion to ensure that they are effective in setting and maintaining appropriate expectations of performance. The expectations for tenure and for promotion to the rank of Associate Professor should be such that teaching quality has been well demonstrated and that there is evidence of superior scholarly research. For promotion to the rank of Full Professor, excellence in teaching and a recognized international scholarly reputation in the candidate's chosen field of study must be demonstrated.
28. Continue to scrutinize the increment records of Faculties and reward, through budgetary allocations or differential distribution of the increment pool, those Faculties that are truly rewarding excellence in academic performance.
29. Monitor and report on the annual assessments of the performance of the academic staff. This annual report will include a discussion of the frequency, distribution, and follow-up on unsatisfactory performance ratings of academic staff.

Responding to enrollment demands of the future

Initiative 16: System cooperation and planning for expansion

30. Develop a workable proposal for a formal Province-wide committee to promote system cooperation and restructuring, and to improve course transferability and program coordination, for consideration by the respective Boards and the Minister. This committee should not duplicate the current work done by the Alberta Committee on Admissions and Transfer.

Initiative 17: The challenge of expansion with limited resources

31. Plan our future expansion on the assumption that in the year 2006, 50 per cent of the undergraduate degrees granted in the Province will come from the University of Alberta.
32. Continue to make representations to the Government for the removal of the present cap on tuition fees which limits fees to 20 per cent of the operating budget, in order to permit the Boards of Governors of Alberta universities to adjust fees at reasonable rates to more appropriate levels.
33. Continue to make representations and assist the Government to strengthen the Student Loan Fund, including giving serious consideration to income-contingent loan repayments through the federal income tax system.
34. In planning the use of the vacant land on campus, assign top priority to structures to house academic units in support of the future expansion of enrollments and research.
35. Seek to increase private support, in part through a major fundraising campaign during the next five years. Faculties will provide plans for their participation in the campaign. Individual faculty members will also be encouraged to seek greater support from outside agencies, including private organizations and granting agencies.

Providing high quality support services and facilities

Initiative 18: High quality service in support of teaching, learning, and research

36. Develop the mechanisms and support systems necessary to promote and enable ongoing programs of continuous improvement in all parts of the service community.
37. Develop the mechanisms necessary to identify opportunities to reorganize services and processes, particularly those that are cross-functional, and provide the support systems that will enable their successful transformation.
38. Identify, and take the steps necessary to achieve, improvements in those human resource management policies and practices that encourage innovation and team approaches, promote improved overall performance, and contribute to healthy staff relations. Particular attention should be paid to staff development initiatives, recognition and reward systems, and problem-solving processes.
39. Move quickly to complete the plan for redevelopment of the University's core administrative information systems. These systems are to be integrated and flexible. The computer systems, and the broader administrative processes of which they are part, are to be re-engineered according to client-driven requirements.

Initiative 19: Library support and access to extended academic information systems

40. Take steps for the University of Alberta Library to become an active partner in regional, national, and international library consortia and thus provide for the rapid access of Alberta scholars to any needed academic information and materials.
41. While continuing to maintain a strong core collection, focus the Library's intensive collecting on those subject areas which the University has identified as academic priorities and centres of excellence.

42. Recognize the Library's partnering responsibilities in consortia, and maintain its collection in a manner that will contribute significantly to the virtual library, as well as to the service of the Library's immediate clientele.
43. Develop a strong training and support program in information literacy to assist students and faculty in the effective use of the virtual library.

Meeting employers' needs

Initiative 20: Responsive curricula

44. Establish either an Advisory or Visiting Committee in each Faculty to stimulate dialogue and solicit input from the community regarding the appropriateness of the educational preparedness of each Faculty's graduates.
45. Survey employers periodically to determine the degree of satisfaction and level of concerns that employers have with the University of Alberta graduates whom they employ.

Initiative 21: Tracking graduates

46. Develop a system to track and monitor the performance of each Faculty's graduates, within regular time frames, such as one, five, and ten years following graduation.

Appendix G:

Summary of Restructuring at the University of Alberta, 1991-97

Summary of Restructuring at the University of Alberta, 1991-97

1991-92

Academic:

- The Department of Agricultural Engineering (Agriculture) was closed, effective June 1991.
- The Department of East Asian Languages & Literatures was merged with the East Asian Studies Program. On March 24, 1993 the Department of East Asian Languages & Literatures was changed to the Department of East Asian Studies.
- The Faculty of Library & Information Studies became the School of Library & Information Studies within the Faculty of Education effective July 1991.
- The Department of Recreation & Leisure (Physical Education & Recreation) became a division within the Department of Physical Education and Sport Studies (Physical Education & Recreation), effective May 1991.
- As an alternative to closure, the Department of Applied Sciences (Medicine) was maintained as a Department on the understanding that a plan be developed for significant cost-saving and that the undergraduate teaching role of the Department be expanded.
- The Faculty of Dentistry DDS annual quota was reduced from 50 to 30 beginning with the 1991-92 intake of students.
- The academic staff of the Department of Oral Biology (Dentistry) was reduced from ten to six and the remaining budget was decreased by 50%, effective June 1991.
- The Vocational Education and Industrial Arts Education (High School Specialization) programs (Education) were merged into a single degree program with four faculty associated with these programs transferred to the Department of Secondary Education, effective June 1991. The quota in the merged area was significantly reduced with two faculty positions retained to teach basic Vocational/Industrial Arts (High School Specialization) courses.

Other:

- The faculty status of Student Services was abolished with Student Services becoming a support unit within the office of VP (Academic) called University Student Services, effective July 1991.
-

1992-93

Academic:

- The Department of Food Science (Agriculture) and the Department of Foods & Nutrition (Home Economics) merged to form the Department of Food Science & Nutrition, effective May 1992.
- The Department of Clothing & Textiles (Home Economics) and the Department of Family Studies (Home Economics) merged to form the Department of Human Ecology, effective May 1992.
- A new department named the Department of Oncology was established in the Faculty of Medicine, effective January 1993.

1993-94

Academic:

- The Faculty of Home Economics merged with the Faculty of Agriculture & Forestry to form the Faculty of Agriculture, Forestry, & Home Economics, effective April 1993.
- A new department named the Department of Medical Genetics was established in the Faculty of Medicine, effective October 1993.

Other:

- Printing Services, an ancillary unit within the office of VP (Finance & Administration), was closed effective July 1993.
 - The *Golden Bears* Football program was closed at the end of the 1993 season.
-

1994-95

Academic:

- The Department of Food Science & Nutrition (Agriculture) merged with the Departments of Animal Science and Plant Science (Agriculture) to form the Department of Agricultural, Food, & Nutritional Science, effective September 1994.
- The Departments of Forest Science and Soil Science (Agriculture) merged to form the Department of Renewable Resources, effective September 1994.
- The Departments of History and Classics (Arts) merged to form the Department of History & Classics, effective July 1994.
- The Canadian Studies Program (Arts) became the Division of Canadian Studies in the Department of Political Science (Arts), effective May 1994.
- The Departments of Literature & Film Studies and Religious Studies (Arts) merged to form the Department of Comparative Studies of Literature, Film & Religion, effective May 1994.
- The Departments of Educational Administration and Educational Foundations and five faculty members from the Department of Adult, Career & Technology Education (Education) merged to form the Department of Educational Policy Studies, effective July 1994.
- Seven faculty members from the Department of Adult, Career & Technology (Education) merged with the Department of Educational Psychology (Education) to form the Department of Educational Psychology & Technology, effective July 1994. The Department's name was changed to the Department of Educational Psychology, effective November 1994.
- The Departments of Mathematics and Statistics & Applied Probability (Science) merged to form the Department of Mathematical Sciences, effective July 1994.
- The Department of Entomology (Agriculture) was merged with the Department of Zoology (Science), effective July 1994. The Departments of Zoology, Botany, Genetics, and Microbiology merged to form the Department of Biological Sciences (Science), effective July 1994.
- The Department of Athletics (Physical Education & Recreation) ceased to exist as an academic unit and became a cost-recovery unit within the Faculty of Physical Education & Recreation,

effective May 1994.

- The Faculty of Physical Education & Recreation moved to a non-departmentalized structure, effective January 1995.
- A joint Master of Business Administration/Master of Health Services Administration (MBA/MHSA) program to be delivered by the Faculties of Business and Medicine was established, effective September 1995.

Other:

- The Division of Technology in Education was established in the Faculty of Education consisting of the former Instructional Technology Centre and Publication Services with joint academic appointments, including an individual to head the Division, effective July 1994.
- The office of VP (Student & Academic Services) was closed, effective July 1994.
- University food services (formerly supplied by the Housing & Food Services unit within the office of VP [Finance & Administration]) were privatized.
- The departments of Personnel Services & Staff Relations, Pensions & Benefits Administration, and the Payroll Section of the Comptroller's Office (VP [Finance & Administration]) merged to become a single unit called the Human Resources Group, effective September 1994.

1995-96

Academic:

- The Departments of Germanic Languages, Slavic & East European Studies, Romance Languages, and Comparative Studies of Literature, Film & Religion (Arts) merged to form the Department of Modern Languages and Comparative Studies, effective April 1995.
- The Departments of Medical Microbiology & Infectious Diseases and Immunology merged to form the Department of Medical Microbiology & Immunology, effective July 1995.
- The Division of Neuroscience was established in the Faculty of Medicine, effective February 1996.
- The Departments of Geology and Geography (Science) merged to form the Department of Earth & Atmospheric Sciences, effective July 1995.
- The Departments of Dental Health Care, Oral Biology, Restorative Dentistry, and Stomatology (Dentistry) merged to form the Department of Oral Health Sciences, effective July 1995.

Other:

- The offices of VP (Research) and VP (Development & Community Affairs) merged to form the office of VP (Research & External Affairs), resulting in the addition of a unit called External Affairs to the office of VP (Research).
- A new unit called the Industry Liaison Office was established within the office of VP (Research & External Affairs).

1996-97

Academic:

- The Faculty of Medicine and the Faculty of Dentistry merged to form the Faculty of Medicine & Oral Health Sciences effective April 1996. With the merger, the Department of Oral Health Sciences was added to the Faculty of Medicine.
- The Department of Mining, Metallurgical & Petroleum Engineering (Engineering) was dissolved effective July 1996. Existing Metallurgical Engineering staff and resources were integrated into the Department of Chemical Engineering to form the Department of Chemical and Materials Engineering. Existing Mining Engineering and Petroleum Engineering staff and resources became a division called the School of Mining and Petroleum Engineering within the Department of Civil & Environmental Engineering.

Other:

- The Libraries unit in the office of VP (Research & External Affairs) was transferred to the office of VP (Academic) and renamed Learning Support Systems.
- 14 units in the office of VP (Finance & Administration) were reorganized into 5 units consisting of 17 sub-units.

1997-98

Academic:

- Beginning in the 1997-98 academic year the Bachelor of Education program moved to a 1+3 model, with entry into the program after one year in an Arts or Science program.

Note: Only program and quota changes occurring for budgetary reasons are recorded in this table. Changes resulting from the standard academic process of program and quota review are not included. From University of Alberta (1991-96a; 1991-96b; 1994d; 1995; 1996a; 1996c; 1997d).

Appendix H:

**University of Alberta Unit Net Operating Expenditures
Excluding Conditional Grants (in Thousands of Dollars)
for the Years Ended March 31, 1994-97**

University of Alberta Unit Net Operating Expenditures Excluding Conditional Grants (in Thousands of Dollars) For the Years Ended March 31, 1994-97

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
FACULTIES:								
<i>Agriculture, Forestry & Home Economics</i>								
Dean's Office	570	709	711	841	24.4	0.3	18.3	47.5
<i>Merged September 1994:</i>								
Animal Science	3,022	2,882	-	-	(4.6)	(100.0)	n/a	n/a
Food Science	1,997	1,552	-	-	(22.3)	(100.0)	n/a	n/a
Plant Science	2,078	1,954	-	-	(6.0)	(100.0)	n/a	n/a
Ag. Food & Nutritional Science	7,097	6,388	6,113	5,767	(10.0)	(4.3)	(5.7)	(18.7)
<i>Merged September 1994:</i>								
Forest Science	2,097	1,828	-	-	(12.8)	(100.0)	n/a	n/a
Soil Science	1,595	1,344	-	-	(15.7)	(100.0)	n/a	n/a
Renewable Resources	3,692	3,172	3,048	3,098	(14.1)	(3.9)	1.6	(16.1)
Entomology (moved to Faculty of Science July 1994)	1,050	281	-	-	(73.2)	(100.0)	n/a	n/a
Human Ecology	1,563	1,493	1,592	1,441	(4.5)	6.6	(9.5)	(7.8)
Rural Economy	1,488	1,374	1,560	1,413	(7.7)	13.5	(9.4)	(5.0)
Total Agriculture, Forestry & Home Ec.	15,460	13,417	13,024	12,560	(13.2)	(2.9)	(3.6)	(18.8)
<i>Arts</i>								
Dean's Office	698	906	652	891	29.8	(28.0)	36.7	27.7
Student Programs Office	457	463	429	434	1.3	(7.3)	1.2	(5.0)
Women's Studies Program	233	249	225	228	6.9	(9.6)	1.3	(2.1)
Anthropology	1,986	1,907	1,902	2,097	(4.0)	(0.3)	10.3	5.6
Art & Design	2,819	2,748	2,749	2,813	(2.5)	0.0	2.3	(0.2)
Art Store	-	2	11	1	n/a	450.0	(90.9)	n/a
<i>Merged May 1994:</i>								
Comparative Lit. & Film Studies	1,076	-	-	-	(100.0)	n/a	n/a	n/a
Religious Studies	596	-	-	-	(100.0)	n/a	n/a	n/a
Comp. Studies in Lit., Film & Religion	1,672	1,587	-	-	(5.1)	(100.0)	n/a	n/a
<i>Merged April 1995:</i>								
Comp. Studies in Lit., Film & Religion	1,672	1,587	-	-	(5.1)	(100.0)	n/a	n/a
Germanic Languages	1,057	1,041	-	-	(1.5)	(100.0)	n/a	n/a
Romance Languages	2,829	2,626	-	-	(7.2)	(100.0)	n/a	n/a
Slavic and East European Studies	1,023	1,053	-	-	2.9	(100.0)	n/a	n/a
Modern Languages & Comp. Studies	6,581	6,307	5,969	5,783	(4.2)	(5.4)	(3.1)	(12.1)
Drama	2,187	2,056	2,099	2,025	(6.0)	2.1	(3.5)	(7.4)
East Asian Languages and Literature	970	883	892	886	(9.0)	1.0	(0.7)	(8.7)
Economics	3,535	3,203	2,900	3,005	(9.4)	(9.5)	3.6	(15.0)
English	6,246	5,924	5,715	5,590	(5.2)	(3.5)	(2.2)	(10.5)

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
<i>Merged July 1994:</i>								
History	2,973	-	-	-	(100.0)	n/a	n/a	n/a
Classics	1,024	-	-	-	(100.0)	n/a	n/a	n/a
History and Classics	3,997	3,580	3,238	3,355	(10.4)	(9.6)	3.6	(16.1)
Language Resource Centre	363	387	377	330	6.6	(2.6)	(12.5)	(9.1)
Linguistics	866	901	857	1,028	4.0	(4.9)	20.0	18.7
Music	2,180	2,116	2,070	1,996	(2.9)	(2.2)	(3.6)	(8.4)
Philosophy	1,799	1,802	1,753	1,857	0.2	(2.7)	5.9	3.2
<i>Merged May 1994:</i>								
Canadian Studies	209	-	-	-	(100.0)	n/a	n/a	n/a
Political Science	2,246	2,397	2,330	2,313	6.7	(2.8)	(0.7)	3.0
Political Science	2,455	2,397	2,330	2,313	(2.7)	(2.8)	(0.7)	(5.9)
Psychology	2,323	2,110	2,201	2,228	(9.2)	4.3	1.2	(4.1)
Sociology	4,300	4,230	4,170	4,062	(1.6)	(1.4)	(2.6)	(5.5)
Total Arts	43,995	42,171	40,539	40,922	(4.1)	(3.9)	0.9	(7.0)
<i>Business</i>								
Business	9,231	8,739	8,693	9,168	(5.3)	(0.5)	5.5	(0.7)
<i>Dentistry (merged with Faculty of Medicine April 1996)</i>								
Dean's Office	1,417	1,266	2,149	-	(10.7)	69.7	(100.0)	n/a
Dental Health Care	1,075	973	504	-	(9.5)	(48.2)	(100.0)	n/a
Stomatology	1,939	1,741	1,393	-	(10.2)	(20.0)	(100.0)	n/a
Oral Biology	988	996	738	-	0.8	(25.9)	(100.0)	n/a
Restorative Dentistry	1,837	1,727	1,038	-	(6.0)	(39.9)	(100.0)	n/a
Dentistry Merger Costs	-	-	-	663	n/a	n/a	n/a	n/a
Total Dentistry	7,256	6,703	5,822	663	(7.6)	(13.1)	(88.6)	(90.9)
<i>Education</i>								
Dean's Office	1,061	1,118	965	998	5.4	(13.7)	3.4	(5.9)
Instructional Technology Centre	1,084	880	1,181	883	(18.8)	34.2	(25.2)	(18.5)
Education Clinic	308	254	232	229	(17.5)	(8.7)	(1.3)	(25.6)
Adult, Career & Technology Ed.	1,378	1,184	-	-	(14.1)	(100.0)	n/a	n/a
Adult, Career & Technology Ed. - VCC	10	33	(30)	(30)	230.0	(190.9)	-	(400.0)
<i>Merged July 1994:</i>								
5/12 Adult, Career & Technology Ed.	574	493	-	-	n/a	n/a	n/a	n/a
Educational Administration	1,845	1,761	-	-	(4.6)	(100.0)	n/a	n/a
Educational Foundations	1,687	1,828	-	-	8.4	(100.0)	n/a	n/a
Educational Policy Studies	4,106	4,082	3,170	3,199	(0.6)	(22.3)	0.9	(22.1)
Undergraduate Student Services	1,833	1,692	1,653	1,489	(7.7)	(2.3)	(9.9)	(18.8)
Extended Campus M.Ed. - Yellowknife	(27)	(65)	-	-	140.7	(100.0)	n/a	n/a

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
<i>Merged July 1994:</i>								
7/12 Adult, Career & Technology Ed.	804	691	-	-	n/a	n/a	n/a	n/a
Educational Psychology	4,869	3,991	4,415	4,579	(18.0)	10.6	3.7	(6.0)
Educational Psychology	5,673	4,682	4,415	4,579	(17.5)	(5.7)	3.7	(19.3)
Development Disabilities Centre	138	132	87	-	(4.3)	(34.1)	(100.0)	n/a
Educational Research	289	270	-	-	(6.6)	(100.0)	n/a	n/a
Elementary Education	3,583	3,288	3,330	2,753	(8.2)	1.3	(17.3)	(23.2)
School of Library & Info. Studies	787	733	635	627	(6.9)	(13.4)	(1.3)	(20.3)
Secondary Education	2,571	2,602	2,298	2,369	1.2	(11.7)	3.1	(7.9)
Total Education	21,416	19,701	17,936	17,096	(8.0)	(9.0)	(4.7)	(20.2)
<i>Engineering</i>								
Dean's Office	757	620	766	1,217	(18.1)	23.5	58.9	60.8
Centre for Co-operative Education	519	497	467	410	(4.2)	(6.0)	(12.2)	(21.0)
Chemical (& Materials as of July 1996) Engineering	2,344	2,346	2,318	2,888	0.1	(1.2)	24.6	23.2
Civil (& Environmental as of July 1996) Engineering	4,301	3,664	3,657	4,078	(14.8)	(0.2)	11.5	(5.9)
Civil Engineering Survey School	9	9	10	25	0.0	11.1	150.0	177.8
Computer Engineering	383	380	378	314	(0.8)	(0.5)	(16.9)	(18.0)
Electrical Engineering	4,346	4,258	4,541	4,047	(2.0)	6.6	(10.9)	(6.9)
Mechanical Engineering	2,961	2,912	2,947	2,668	(1.7)	1.2	(9.5)	(9.9)
Mining, Metal. & Petrol. Eng. (combined with Depts. of Chemical and Civil Engineering July 1996)	2,226	2,194	2,018	1,469	(1.4)	(8.0)	(27.2)	(34.0)
Total Engineering	17,846	16,880	17,102	17,116	(5.4)	1.3	0.1	(4.1)
<i>Graduate Studies & Research</i>								
Graduate Studies & Research	1,228	1,009	866	993	(17.8)	(14.2)	14.7	(19.1)
Student Research Travel	20	-	-	-	(100.0)	n/a	n/a	n/a
Dissertation Fellowships	304	503	344	394	65.5	(31.6)	14.5	29.6
Differential Fees Award	176	139	110	170	(21.0)	(20.9)	54.5	(3.4)
Graduate Studies-ACBW Bursary	131	1	-	-	(99.2)	(100.0)	n/a	n/a
GSR Scholarships	-	-	-	524	n/a	n/a	n/a	n/a
Research Assistantships	14	4	5	45	(71.4)	25.0	800.0	221.4
U of A PhD Scholarships	1,534	2,036	2,565	1,774	32.7	26.0	(30.8)	15.6
Walter H. Johns Fellowships	734	711	649	631	(3.1)	(8.7)	(2.8)	(14.0)
External Review-Graduate Programs	-	35	94	74	n/a	168.6	(21.3)	n/a
Total Graduate Studies & Research	4,141	4,438	4,633	4,605	7.2	4.4	(0.6)	11.2

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
<i>Interdisciplinary Research Units</i>								
Coordinator	20	2	22	7	(90.0)	1000.0	(68.2)	(65.0)
Canadian Circumpolar Institute	210	252	247	232	20.0	(2.0)	(6.1)	10.5
Canadian Institute of Ukrainian Studies	721	659	642	593	(8.6)	(2.6)	(7.6)	(17.8)
Centre for Gerontology	25	27	23	23	8.0	(14.8)	0.0	(8.0)
Devonian Botanic Gardens	516	474	707	238	(8.1)	49.2	(66.3)	(53.9)
Environmental Research & Studies	8	-	(2)	2	(100.0)	n/a	200.0	(75.0)
Total Interdisciplinary Research	1,500	1,414	1,639	1,095	(5.7)	15.9	(33.2)	(27.0)
<i>Law</i>								
Law	3,187	3,089	3,081	2,838	(3.1)	(0.3)	(7.9)	(11.0)
<i>Medicine (& Oral Health Sciences as of April 1996)</i>								
Dean's Office	1,368	1,359	2,187	2,106	(0.7)	60.9	(3.7)	53.9
Alumni Affairs & Faculty Development	1	1	1	-	0.0	0.0	(100.0)	n/a
Anesthesia	477	420	381	379	(11.9)	(9.3)	(0.5)	(20.5)
Anatomy and Cell Biology	1,090	1,046	1,102	1,123	(4.0)	5.4	1.9	3.0
Applied Sciences in Medicine	475	441	505	-	(7.2)	14.5	(100.0)	n/a
Biochemistry	2,012	1,857	1,982	1,924	(7.7)	6.7	(2.9)	(4.4)
Bioethics	55	46	48	76	(16.4)	4.3	58.3	38.2
Biomedical Engineering	-	-	-	488	n/a	n/a	n/a	n/a
Cardiovascular Disease	10	-	-	-	(100.0)	n/a	n/a	n/a
Continuing Medical Education	111	39	1	104	(64.9)	(97.4)	100.0+	(6.3)
Emergency Medicine	42	20	64	65	(52.4)	220.0	1.6	54.8
Family Medicine	1,067	1,277	1,224	1,188	19.7	(4.2)	(2.9)	11.3
Health Sciences Lab Animal Services	863	784	1,006	827	(9.2)	28.3	(17.8)	(4.2)
Health Sciences Media Services	353	192	189	213	(45.6)	(1.6)	12.7	(39.7)
Laboratory Medicine & Pathology	-	-	-	1,601	n/a	n/a	n/a	n/a
Lipid and Lipoprotein	29	18	27	28	(37.9)	50.0	3.7	(3.4)
Medical Genetics	-	-	10	300	n/a	n/a	2900.0	n/a
<i>Merged July 1995:</i>								
Immunology	522	439	461	-	(15.9)	5.0	(100.0)	n/a
Medical Microbiology & Infect. Disease	1,558	1,284	1,194	-	(17.6)	(7.0)	(100.0)	n/a
Medical Microbiology & Immunology	2,080	1,723	1,655	1,432	(17.2)	(3.9)	(13.5)	(31.2)
Medical Microbiology-Provincial Labs	-	-	1	27	n/a	n/a	2600.0	n/a
Medicine	3,782	3,538	3,637	3,309	(6.5)	2.8	(9.0)	(12.5)
Molecular Biology of Membranes	-	-	-	2	n/a	n/a	n/a	n/a
Neurosciences	4	10	15	14	150.0	50.0	(6.7)	250.0
Neonatal Research	122	106	109	-	(13.1)	2.8	(100.0)	n/a
Obstetrics and Gynecology	819	778	820	886	(5.0)	5.4	8.0	8.2
Oncology	-	(2)	193	369	n/a	97.5	91.2	n/a
Ophthalmology	634	413	401	306	(34.9)	(2.9)	(23.7)	(51.7)

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
Oral Health Sciences	-	-	-	5,093	n/a	n/a	n/a	n/a
Pathology	1,474	1,973	1,848	-	33.9	(6.3)	(100.0)	n/a
Pathology - Medical Lab Science	584	-	-	-	(100.0)	n/a	n/a	n/a
Paediatrics	1,848	1,797	1,757	1,784	(2.8)	(2.2)	1.5	(3.5)
Perinatal Research Center	-	-	-	128	n/a	n/a	n/a	n/a
Pharmacology	1,574	1,443	1,322	1,286	(8.3)	(8.4)	(2.7)	(18.3)
Physiology	1,654	1,566	1,313	1,726	(5.3)	(16.2)	31.5	4.4
Post Graduate Medical Education	103	104	106	108	1.0	1.9	1.9	4.9
Provincial Lab of Public Health	33	-	-	-	n/a	(100.0)	n/a	n/a
Psychiatry	1,050	924	890	1,000	(12.0)	(3.7)	12.4	(4.8)
Public Health Services	1,438	1,194	1,238	1,426	(17.0)	3.7	15.2	(0.8)
Pulmonary & Cell Biology Research	10	13	9	9	30.0	(30.8)	0.0	(10.0)
Radiology & Diagnostic Imaging	313	316	351	364	1.0	11.1	3.7	16.3
Research	256	280	215	301	9.4	(23.2)	40.0	17.6
Studies in Medical Education	151	107	129	115	(29.1)	20.6	(10.9)	(23.8)
Surgery	1,700	1,443	1,364	1,464	(15.1)	(5.5)	7.3	(13.9)
Surgical Medical Research Institute	329	301	290	275	(8.5)	(3.7)	(5.2)	(16.4)
U of A Hospitals Recovery	(3,792)	(3,707)	(3,707)	(3,760)	(2.2)	0.0	1.4	(0.8)
Undergraduate Ed & Student Affairs	186	211	195	234	13.4	(7.6)	20.0	25.8
Total Medicine (& Oral Health Sciences as of April 1996)	24,305	22,031	22,878	28,320	(9.4)	3.8	23.8	16.5
Native Studies								
School of Native Studies	436	442	439	458	1.4	(0.7)	4.3	5.0
Nursing								
Nursing	4,880	4,927	3,433	4,308	1.0	(30.3)	25.5	(11.7)
Pharmacy & Pharmaceutical Sciences								
Dean's Office	2,814	2,790	2,631	2,755	(0.9)	(5.7)	4.7	(2.1)
Drug Information Centre	4	3	7	-	(25.0)	133.3	(100.0)	n/a
Pharmacy Slowpoke II Reactor	(27)	11	(48)	41	140.7	(536.4)	185.4	251.9
Total Pharmacy & Pharmaceutical Sci.	2,791	2,804	2,590	2,796	0.5	(7.6)	8.0	0.2
Physical Education & Recreation Administration (non-departmentalized January 1995)								
Dean's Office	352	292	3,763	3,682	(17.0)	1188.7	(2.2)	946.0
Physical Education & Sport Studies	4,173	3,266	-	-	(21.7)	(100.0)	n/a	n/a
Athletic Services (became a cost-recovery unit effective May 1994)	1,400	1,403	499	268	0.2	(64.4)	(46.3)	(80.9)
Campus Outdoor Centre	-	-	-	60	n/a	n/a	n/a	n/a
Support Services Division	711	709	856	349	(0.3)	20.7	(59.2)	(50.9)
U of A Tennis Centre	(4)	(6)	(14)	(21)	50.0	133.3	50.0	425.0

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
Total Physical Ed. & Recreation Admin.	6,632	5,664	5,104	4,338	(14.6)	(9.9)	(15.0)	(34.6)
Rehabilitation Medicine								
Dean's Office	590	684	963	1,042	15.9	40.8	8.2	76.6
Master of Speech Language Pathology	12	(5)	(13)	(121)	(141.7)	160.0	830.8	(908.3)
Occupational Therapy	1,001	940	938	969	(6.1)	(0.2)	3.3	(3.2)
Physical Therapy	1,249	1,086	906	1,127	(13.1)	(16.6)	24.4	(9.8)
Speech Pathology and Audiology	924	867	874	686	(6.2)	0.8	(21.5)	(25.8)
Total Rehabilitation Medicine	3,776	3,572	3,668	3,708	(5.4)	2.7	1.1	(1.8)
Faculte Saint-Jean								
Dean's Office	2,502	2,390	2,251	2,723	(4.5)	(5.8)	21.0	8.8
Extended Practicum	86	95	98	91	10.5	3.2	(7.1)	5.8
Total Faculte Saint-Jean	2,588	2,485	2,349	2,814	(4.0)	(5.5)	19.8	8.7
Science								
Dean's Office	1,238	1,870	1,920	2,739	51.1	2.7	42.7	121.2
<i>Merged July 1994:</i>								
Botany	1,874	519	-	-	(72.3)	(100.0)	n/a	n/a
Entomology (from Faculty of Ag., Forestry & Home Ec.)	1,050	281	-	-	(73.2)	(100.0)	n/a	n/a
Genetics	2,161	604	-	-	(72.0)	(100.0)	n/a	n/a
Microbiology	1,803	519	-	-	(71.2)	(100.0)	n/a	n/a
Zoology	4,358	1,122	-	-	(74.3)	(100.0)	n/a	n/a
Biological Sciences	-	7,650	11,087	9,834	n/a	44.9	(11.3)	n/a
Biological Sciences	11,246	10,695	11,087	9,834	(4.9)	3.7	(11.3)	(12.6)
Biosciences Animal Service	291	293	288	308	0.7	(1.7)	6.9	5.8
Chemistry	8,539	8,295	8,438	7,828	(2.9)	1.7	(7.2)	(8.3)
Computing Science	4,890	4,603	4,662	4,941	(5.9)	1.3	6.0	1.0
<i>Merged July 1995:</i>								
Geography	2,748	2,473	-	-	(10.0)	(100.0)	n/a	n/a
Geology	2,841	2,792	-	-	(1.7)	(100.0)	n/a	n/a
Earth and Atmospheric Sciences	5,589	5,265	5,289	4,488	(5.8)	0.5	(15.1)	(19.7)
Killam Chairs	315	323	333	345	2.5	3.1	3.6	9.5
<i>Merged July 1994:</i>								
Mathematics	5,840	6,421	-	-	9.9	(100.0)	n/a	n/a
Statistics and Applied Probability	1,257	378	-	-	(69.9)	(100.0)	n/a	n/a
Mathematical Sciences	7,097	6,799	7,046	6,883	(4.2)	3.6	(2.3)	(3.0)
Physics	6,576	6,189	6,157	5,992	(5.9)	(0.5)	(2.7)	(8.9)
Psychology	1,185	1,091	1,200	1,205	(7.9)	10.0	0.4	1.7
Total Science	45,916	45,142	46,420	44,563	(1.7)	2.8	(4.0)	(2.9)

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
Special Sessions								
Director	337	365	543	803	8.3	48.8	47.9	138.8
Spring Term	(645)	(969)	(1,064)	(1,031)	50.2	9.8	(3.1)	59.8
Summer Term	(307)	(347)	(377)	(578)	13.0	8.6	53.3	88.3
Off Campus Credit Program	(17)	12	(36)	(38)	170.6	(400.0)	5.6	123.5
Evening Credit	-	-	-	(28)	n/a	n/a	n/a	n/a
Total Special Sessions	(632)	(939)	(934)	(872)	48.6	(0.5)	(6.6)	38.0
Sub-Total Faculties	214,724	202,680	198,416	196,491	(5.6)	(2.1)	(1.0)	(8.5)
Undistributed Staff Benefits								
Excluding Unfunded Liabilities:**								
Remission of Fees-Phys Ed Facility	97	92	92	-	(5.2)	0.0	(100.0)	n/a
Unemployment Insurance	226	210	190	-	(7.1)	(9.5)	(100.0)	n/a
Subsidized Housing Loan Interest	2	1	-	-	(50.0)	(100.0)	n/a	n/a
SUB Plan Costs-Faculties	45	-	-	-	(100.0)	n/a	n/a	n/a
Retro SUB Plan-Maternity	3	-	-	-	(100.0)	n/a	n/a	n/a
Bridge Benefit Plan Costs	620	1,030	1,120	1,474	66.1	8.7	31.6	137.7
Pensions Prior Service-UAPP	67	9	34	29	(86.6)	277.8	(14.7)	(56.7)
Pensions Deficiencies-UAPP	20	29	17	23	45.0	(41.4)	35.3	15.0
Pensions Prior Service-PSPP	33	3	18	13	(90.9)	500.0	(27.8)	(60.6)
Pensions Deficiencies-PSPP	24	(1)	19	4	(104.2)	2000.0	(78.9)	(83.3)
Staff Benefits-Various	-	-	-	265	n/a	n/a	n/a	n/a
Other	(177)	(87)	555	3	(50.8)	737.9	(99.5)	101.7
Total Undistributed Staff Benefits	960	1286	2,045	1,811	34.0	59.0	(11.4)	88.6
TOTAL FACULTIES	215,684	203,966	200,461	198,302	(5.4)	(1.7)	(1.1)	(8.1)
ADMINISTRATION & SUPPORT:								
Faculty Support								
Computing and Network Services								
Business Systems Development	-	-	993	1,006	n/a	n/a	1.3	n/a
Central Operations	(954)	1,163	-	-	221.9	(100.0)	n/a	n/a
Client Services	-	-	2,184	2,228	n/a	n/a	2.0	n/a
Data Communication and Networks	1,253	1,922	-	-	53.4	(100.0)	n/a	n/a
Director	712	610	451	726	(14.3)	(26.1)	61.0	2.0
Information Systems	1,475	1,673	-	-	13.4	(100.0)	n/a	n/a
Merchandising	(68)	68	(226)	6	200.0	(432.4)	102.7	108.8
Network Services	-	-	2,096	2,141	n/a	n/a	2.1	n/a
Service Operations	-	-	2,707	3,094	n/a	n/a	14.3	n/a
Systems Software	2,173	1,853	-	-	(14.7)	(100.0)	n/a	n/a
User Support	695	627	-	-	(9.8)	(100.0)	n/a	n/a

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
Workstations & Distributed Computing	1,973	1,360	-	-	(31.1)	(100.0)	n/a	n/a
Total Computing & Network Services	7,259	9,276	8,205	9,201	27.8	(11.5)	12.1	26.8
Alberta Law Reform Institute	60	60	60	60	0.0	0.0	0.0	0.0
Capital Planning Reserve-Transfer	5,700	11,477	6,746	6,724	101.4	(41.2)	(0.3)	18.0
Convocation and Induction	157	130	152	175	(17.2)	16.9	15.1	11.5
Human Rights	300	288	249	314	(4.0)	(13.5)	26.1	4.7
Miscellaneous***	1,201	1,910	(1,040)	368	59.0	(154.5)	135.4	(69.4)
Museums and Collections Services	519	491	494	506	(5.4)	0.6	2.4	(2.5)
Student Identity Cards	13	13	9	14	0.0	(30.8)	55.6	7.7
Technical Resource Group	1,247	1,434	1,273	1,120	15.0	(11.2)	(12.0)	(10.2)
Temporary Staff Services	(6)	2	7	10	133.3	250.0	42.9	266.7
University Archives	-	-	215	207	n/a	n/a	(3.7)	n/a
University Information Enterprises	-	-	-	(69)	n/a	n/a	n/a	n/a
University Press	133	170	122	152	27.8	(28.2)	24.6	14.3
University Teaching Services	127	116	119	146	(8.7)	2.6	22.7	15.0
Total Faculty Support	16,710	25,367	16,611	18,928	51.8	(34.5)	13.9	13.3
Library								
General	15,483	14,839	15,811	15,662	(4.2)	6.6	(0.9)	1.2
Acquisitions	6,727	7,244	7,091	7,196	7.7	(2.1)	1.5	7.0
Total Library	22,210	22,083	22,902	22,858	(0.6)	3.7	(0.2)	2.9
Student Services								
Dean of Students	291	298	299	386	2.4	0.3	29.1	32.6
Academic Support Centre	-	-	147	166	n/a	n/a	12.9	n/a
Career and Placement Services	417	400	450	453	(4.1)	12.5	0.7	8.6
Disabled Student Services	206	203	175	167	(1.5)	(13.8)	(4.6)	(18.9)
Effective Writing Resources	-	140	-	-	n/a	(100.0)	n/a	n/a
Financial Aid & Information Centre	358	321	327	551	(10.3)	1.9	68.5	53.9
International Centre	357	337	450	454	(5.6)	33.5	0.9	27.2
Native Student Services	197	181	273	231	(8.1)	50.8	(15.4)	17.3
Personal and Academic Resources	589	359	-	-	(39.0)	(100.0)	n/a	n/a
Sexual Assault Centre	-	32	64	70	n/a	100.0	9.4	n/a
Student Counselling	-	-	376	354	n/a	n/a	(5.9)	n/a
University Health Services	92	153	(27)	(100)	66.3	(117.6)	270.4	(208.7)
Total Student Services	2,507	2,424	2,534	2,732	(3.3)	4.5	7.8	9.0

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
Public Services								
Faculty of Extension								
General	2,259	1,883	2,210	2,614	(16.6)	17.4	18.3	15.7
Educational Media	273	273	197	184	0.0	(27.8)	(6.6)	(32.6)
Tech. Based Asynchronous Learning	-	-	94	-	n/a	n/a	(100.0)	n/a
Total Public Services	2,532	2,156	2,501	2,798	(14.8)	16.0	11.9	10.5
Physical Plant/Campus Support								
Alumni House	2	(10)	6	11	(600.0)	160.0	83.3	450.0
Campus Security Services	1,693	1,589	1,578	1,536	(6.1)	(0.7)	(2.7)	(9.3)
Environmental Health & Safety	705	633	706	637	(10.2)	11.5	(9.8)	(9.6)
Grants and Subsidies	424	423	421	421	(0.2)	(0.5)	0.0	(0.7)
Liability Insurance	-	-	-	543	n/a	n/a	n/a	n/a
Planning and Development	1,339	1,254	1,262	1,318	(6.3)	0.6	4.4	(1.6)
Physical Plant								
Administration	1,177	1,109	1,183	1,102	(5.8)	6.7	(6.8)	(6.4)
Building Services	9,311	8,931	7,466	7,209	(4.1)	(16.4)	(3.4)	(22.6)
Maintenance								
Buildings	5,799	5,843	5,639	3,814	0.8	(3.5)	(32.4)	(34.2)
Grounds	1,100	1,065	998	968	(3.2)	(6.3)	(3.0)	(12.0)
Energy Management	545	523	496	495	(4.0)	(5.2)	(0.2)	(9.2)
Chemical Waste Disposal	266	253	235	-	(4.9)	(7.1)	(100.0)	n/a
Other	(1)	63	(2)	1,361	6200.0	(103.2)	1000.0+	1000.0+
Rental and Occupancy	179	221	278	400	23.5	25.8	43.9	123.5
Total Physical Plant/Campus Support	22,539	21,897	20,266	19,815	(2.8)	(7.4)	(2.2)	(12.1)
Utilities	13,799	14,433	14,555	14,644	4.6	0.8	0.6	6.1
Administration								
President	436	608	710	813	39.4	16.8	14.5	86.5
Board of Governors	307	448	202	113	45.9	(54.9)	(44.1)	(63.2)
Internal Auditor	-	-	-	327	n/a	n/a	n/a	n/a
Secretariat	450	432	419	431	(4.0)	(3.0)	2.9	(4.2)
Senate	162	186	162	148	14.8	(12.9)	(8.6)	(8.6)
Vice-President (Academic)	1,369	1,078	1,438	1,127	(21.3)	33.4	(21.6)	(17.7)
Central Professional Dev't Fund	22	17	17	13	(22.7)	0.0	(23.5)	(40.9)
Learning Support Systems	-	-	-	108	n/a	n/a	n/a	n/a
Professional Training Fund (APO)	1	9	4	6	800.0	(55.6)	50.0	500.0
Prospective Academic Staff	-	109	70	170	n/a	(35.8)	142.9	n/a
Registrar's Office	4,771	4,091	4,331	4,492	(14.3)	5.9	3.7	(5.8)
Graduand Survey	-	13	22	22	n/a	69.2	0.0	n/a
New to the U	-	3	22	28	n/a	633.3	27.3	n/a

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
Video Conferencing	-	(18)	17	10	n/a	200.0	(41.2)	n/a
International Recruitment	-	-	-	63	n/a	n/a	n/a	n/a
Oracle Transition Group	-	140	170	188	n/a	21.4	10.6	n/a
Student Awards	248	217	237	258	(12.5)	9.2	8.9	4.0
Scholarships-Non. Refund Quota Fee	-	16	22	169	n/a	37.5	668.2	n/a
Undergraduate Scholarships	-	-	-	115	n/a	n/a	n/a	n/a
Spousal Program	2	-	-	2	(100.0)	n/a	n/a	0.0
Student Rating of Instruction	-	23	57	61	n/a	147.8	7.0	n/a
University Professorships	70	81	68	67	15.7	(16.0)	(1.5)	(4.3)
Total VP (Academic)	6,483	5,779	6,475	6,899	(10.0)	12.0	6.5	6.4
Vice-President (Finance & Admin.)	1,846	1,242	972	1,061	(32.7)	(21.7)	9.2	(42.5)
United Way	-	4	(1)	2	n/a	(125.0)	300.0	n/a
Budget and Statistics	667	745	814	770	11.7	9.3	(5.4)	15.4
Comptroller/Financial Services	4,276	2,723	2,697	2,795	(36.3)	(1.0)	3.6	(34.6)
Human Resource Group	1,473	1,384	-	-	(6.0)	(100.0)	n/a	n/a
Administrative Support Services	-	-	-	18	n/a	n/a	n/a	n/a
Transitional Leadership Team	-	-	355	-	n/a	n/a	(100.0)	n/a
Employee Relations	-	-	275	269	n/a	n/a	(2.2)	n/a
Placement/Evaluation/Training	-	-	668	925	n/a	n/a	38.5	n/a
Pension and Benefits	529	547	655	755	3.4	19.7	15.3	n/a
Payroll	-	719	816	920	n/a	13.5	12.7	n/a
Human Resources Dev't Fund	292	269	270	249	(7.9)	0.4	(7.8)	(14.7)
Relocation Counselling Program	28	45	44	-	60.7	(2.2)	(100.0)	n/a
Employee Assistance Program	27	17	16	10	(37.0)	(5.9)	(37.5)	(63.0)
Support Staff Disruption Service	-	36	44	22	n/a	22.2	(50.0)	n/a
Internal Auditor	284	276	287	-	(2.8)	4.0	(100.0)	n/a
Investment and Real Estate Office	16	2	2	(11)	(87.5)	0.0	(650.0)	(168.8)
Liability Insurance	594	578	883	-	(2.7)	52.8	(100.0)	n/a
Materials Management								
Administration	698	714	961	924	2.3	34.6	(3.9)	32.4
Purchasing	1,103	1,033	963	1,060	(6.3)	(6.8)	10.1	(3.9)
Scheduled Distribution	753	725	627	589	(3.7)	(13.5)	(6.1)	(21.8)
Dispatch Distribution	1,001	944	850	820	(5.7)	(10.0)	(3.5)	(18.1)
Central Stores	390	339	261	236	(13.1)	(23.0)	(9.6)	(39.5)
Reprographics	(177)	(178)	(166)	(241)	0.6	(6.7)	45.2	36.2
Organizational Development	-	-	79	155	n/a	n/a	96.2	n/a
Service Initiative Resource Group	-	89	1	-	n/a	(98.9)	(100.0)	n/a
Supplementary Unemploy't Benefits	7	235	231	45	3257.1	(1.7)	(80.5)	542.9
Undistributed Staff Benefits	(227)	295	189	21	230.0	(35.9)	(88.9)	109.3
Total VP (Finance & Administration)	13,580	12,783	12,793	11,394	(5.9)	0.1	(10.9)	(16.1)

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
Vice-President (Dev't & Comm Aff)	263	472	-	-	79.5	(100.0)	n/a	n/a
Advancement Services	571	594	-	-	4.0	(100.0)	n/a	n/a
Development Office	639	564	-	-	(11.7)	(100.0)	n/a	n/a
Public Affairs	535	557	-	-	4.1	(100.0)	n/a	n/a
Folio	45	68	-	-	51.1	(100.0)	n/a	n/a
Alumni Director	278	242	-	-	(12.9)	(100.0)	n/a	n/a
New Trail Magazine	163	177	-	-	8.6	(100.0)	n/a	n/a
Total VP (Dev't & Comm. Affairs)	2,494	2,674	-	-	7.2	(100.0)	n/a	n/a
Vice-President (Research [& External Affairs as of 1995-96])	766	654	610	770	(14.6)	(6.7)	26.2	0.5
Alumni Affairs	-	-	271	390	n/a	n/a	43.9	n/a
New Trail Magazine	-	-	173	165	n/a	n/a	(4.6)	n/a
Development Office	-	-	535	814	n/a	n/a	52.1	n/a
External Affairs-Executive Director	-	-	310	508	n/a	n/a	63.9	n/a
External Affairs-Admin. Services	-	-	697	441	n/a	n/a	(36.7)	n/a
Industry Liason Office	-	-	584	601	n/a	n/a	2.9	n/a
Patents	181	51	172	173	(71.8)	237.3	0.6	(4.4)
Special Research Initiatives Fund	(450)	16	80	(170)	103.6	400.0	(312.5)	(62.2)
Intellectual Properties & Contracts	353	483	-	-	36.8	(100.0)	n/a	n/a
Killam Professorship Awards	21	20	20	20	(4.8)	0.0	0.0	(4.8)
Public Affairs	-	-	557	661	n/a	n/a	18.7	n/a
Folio	-	-	20	22	n/a	n/a	10.0	n/a
Research Grants Office	510	467	459	389	(8.4)	(1.7)	(15.3)	(23.7)
Total VP (Research & [External Affairs])	1,381	1,691	4,488	4,784	22.4	165.4	6.6	246.4
Vice-President (Student & Academic Services)	248	195	3	-	(21.4)	(98.5)	(100.0)	n/a
EPIC Project	-	-	-	511	n/a	n/a	n/a	n/a
FIRST Project	-	76	430	-	n/a	465.8	(100.0)	n/a
Human Resources Project	-	41	472	599	n/a	1051.2	26.9	n/a
Systems Dev't Student Info System	-	-	96	243	n/a	n/a	153.1	n/a
Information Systems License Fee	-	-	107	192	n/a	n/a	79.4	n/a
Information Systems Projects General	-	-	-	1	n/a	n/a	n/a	n/a
Institutional Legal Expenses	-	942	1,228	2,129	n/a	30.4	73.4	n/a
Institutional Bad Debt Expense	-	-	62	230	n/a	n/a	271.0	n/a
Institutional Functions	-	-	3	4	n/a	n/a	33.3	n/a

Unit	Amount				Percentage Difference			
	1994	1995	1996*	1997*	94-95	95-96	96-97	3-yr
Administrative Costs Recovered								
Provincial Lab of Public Health	(62)	-	-	-	n/a	n/a	n/a	n/a
University Health Services	(55)	(57)	(54)	(46)	3.6	(5.3)	(14.8)	(16.4)
Ancillary Departments	(931)	(977)	(1,195)	(1,001)	4.9	22.3	(16.2)	7.5
Total Administration	24,493	24,921	26,401	27,771	1.7	5.9	5.2	13.4
TOTAL ADMIN. & SUPPORT	104,790	113,281	105,770	109,546	8.1	(6.6)	3.6	4.5
TOTAL UNIVERSITY	320,474	317,247	306,232	307,848	(1.0)	(3.5)	(0.5)	(3.9)

Note: * Until 1996, unit expenditures on equipment were evaluated by central administration and paid for out of a separate capital account. Beginning in 1996, however, responsibility for equipment acquisition was turned over to the units and approximately \$4.5 million per year was embedded into the base operating budget to provide for this purpose.

** To attain a more accurate view of the outcome of the expenditure reduction program on normal unit operations, unfunded liabilities of \$11.5 million in 1994 and \$2.6 million in 1995 have been subtracted from total faculty expenditures. These unfunded liabilities were impending financial obligations recorded for early retirement incentives, pension plans, and long-term disability. In most cases, programs were in place to fund these obligations over a planned period of time from operating funds in future years, and these were not actual expenditures made in the years recorded.

*** In 1996, \$6.7 million was flowed through the operating accounts due to the closure of the Capital Planning Reserve. Since this was only an accounting entry and not actual operating revenue, the Faculty Support-Miscellaneous category has been adjusted by that amount for that year.

The above figures are actual expenditures from operating, not budgeted allocations. Amounts are from University of Alberta (1994d; 1995a; 1996a; 1997f), with adjustments as explained above. Percentage differences were calculated by the researcher.